

Table 4  
Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4574	17582	30445	1.41	6.0E-19	P34986	SWISSPROT	OLFACTORY RECEPTOR 6 (M60)
4915	17914		1.28	6.0E-19	AJ271735.1	NT	Homo sapiens Xq pseudautosomal region; segment 1/2
5157	18150	30996	0.92	6.0E-19	AL120817.1	EST_HUMAN	DKFZp782F192.1 762 (synonym: hmel2) Homo sapiens cDNA clone DKFZp782F192.5'
6072	19133	32267	6.33	5.0E-19	Q00193	SWISSPROT	ZONA PELLUCIDA SPERM-BINDING PROTEIN B PRECURSOR (ZONA PELLUCIDA GLYCOPROTEIN ZP-X) (RC55)
6461	19506	32681	1.46	5.0E-19	AW663302.1	EST_HUMAN	h177b06.y1 NCL CGAP_GUT1 Homo sapiens cDNA clone IMAGE:2868787 5'
8392	25088		0.53	6.0E-19	AL163209.2	NT	Homo sapiens chromosome 21 segment HS21C009
10907	23792	37221	0.76	5.0E-19	AJ297699.1	NT	Homo sapiens partial IL-12RB1 gene for IL-12 receptor beta1 chain, exon 14
11968	24811	38306	2.4	5.0E-19	AW183725.1	EST_HUMAN	X87b02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2864171 3' similar to contains element MSR1 repetitive element;
13018	25721		1.44	6.0E-19	U68090.1	NT	Human germline T-cell receptor beta chain TCRBV13S1, TCRBV6S8A2T, TCRBV5S6A3N2T, TCRBV13S8A2T, TCRBV6S9P, TCRBV5S3A2T, TCRBV13S8P, TCRBV6S3A1N1T, TCRBV5S2, TCRBV6S8A2T, TCRBV5S7P, TCRBV13S4, TCRBV6S2A1N1T, TCRBV5S4A2T, TCRBV6S4A1, TCRBV23S1A2T, TCRBV12>
578	13644	28551	1.08	4.0E-19	AB007970.1	EST_HUMAN	Homo sapiens mRNA, chromosome 1 specific transcript KIAA0501
2731	15724	28720	1.29	4.0E-19	BF697362.1	EST_HUMAN	602130910F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4287674 5'
5581	18558	31535	1.19	4.0E-19	AF224669.1	NT	Homo sapiens mannose, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds
3919	16947	28828	1.07	3.0E-19	Q28997	SWISSPROT	BETA-2 ADRENERGIC RECEPTOR
3919	16947	28829	1.07	3.0E-19	Q28997	SWISSPROT	BETA-2 ADRENERGIC RECEPTOR
4557	17566	30424	1.53	3.0E-19	AV708136.1	EST_HUMAN	AV708136 ADC Homo sapiens cDNA clone ADCAMA11 5'
5462	18543		0.73	3.0E-19	AF223467.1	NT	Homo sapiens NPD008 protein (NPD008) mRNA, complete cds
7779	20708		2.01	3.0E-19	11432214	NT	Homo sapiens similar to aldo-keto reductase family 1, member B11 (aldose reductase-like) (H. sapiens) (LOC63222), mRNA
9991	21349	34683	1.14	3.0E-19	X89685.1	NT	Musculus mRNA for TPOR33 protein
12604	25300		15.12	3.0E-19	AF165520.1	NT	Homo sapiens phorbol 1 protein (PBI) mRNA, complete cds
2598	15593	28588	27.87	2.0E-19	AL163201.2	NT	Homo sapiens chromosome 21 segment HS21C001
4555	17564		1.55	2.0E-19	AJ311783.1	EST_HUMAN	q991602.x1 NCL CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1915898 3' similar to TR:Q69386 Q69386 POLYENV GENE:
6280	19340	32508	0.62	2.0E-19	AV731382.1	EST_HUMAN	AV731382 HTF Homo sapiens cDNA clone H1FAZ006 5'
7724	20656	33953	0.6	2.0E-19	7657286	NT	Mus musculus keratin-associated protein 9-1 (Krtap9-1), mRNA
8905	21835	35191	10.07	2.0E-19	AA012854.1	EST_HUMAN	ze34c09.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:360860 5'
10420	23309	36730	0.76	2.0E-19	Q95155	SWISSPROT	OLFACTORY RECEPTOR-LIKE PROTEIN OLF2
504	13575		1.98	1.0E-19	BE408611.1	EST_HUMAN	601304126F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638310 5'

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2177	15189	28195	1.8	1.0E-19	H30795.1	EST_HUMAN	y07907.1 Soares adult brain N204HB55Y Homo sapiens cDNA clone IMAGE:184188 5' similar to contains MER10 repetitive element;
2768	15758		3.37	1.0E-19	D38044.1	NT	Human gene for Ah-receptor, exon 7-9
2892	15946		7	1.0E-19	4758977	NT	Homo sapiens protein tyrosine phosphatase, non-receptor type substrate 1 (PTPNS1) mRNA
3461	16501	29403	1.2	1.0E-18	AA834867.1	EST_HUMAN	t449b12.s1 Soares testis NHT Homo sapiens cDNA clone IMAGE:1393631 3' similar to contains MER37.12 MER37 repetitive element;
5520	18559	31448	0.63	1.0E-19	AI850866.1	EST_HUMAN	wm91b08.x1 NCL_CGAP_U12 Homo sapiens cDNA clone IMAGE:2443287 3' similar to TR:Q16630 Q16630 PMS3 mRNA;
6311	19361	32531	5.05	1.0E-19	U12186.1	NT	rh22d03.s1 NCL_CGAP_P1 Homo sapiens cDNA clone IMAGE:953093 similar to contains L1.11 L1 repetitive element;
8452	25977		0.87	1.0E-19	AA595527.1	EST_HUMAN	Oryzias latipes sodiumdicarboxylate cotransporter mRNA, partial cde
8076	20989	34306	0.83	1.0E-19	U08813.1	NT	Oryzias latipes Na+/glucose cotransporter-related protein mRNA, complete cds
8076	20989	34307	0.88	1.0E-19	U08813.1	NT	Oryzias latipes Na+/glucose cotransporter-related protein mRNA, complete cds
8284	25686		0.57	1.0E-19	AF200719.1	NT	Homo sapiens pituitary tumor transforming gene protein (PTTG) gene, complete cds
9018	21947	35303	1.84	1.0E-18	MF4657.1	NT	Rabbit phosphorylase kinase beta subunit mRNA, complete cds
9300	22228		2.52	1.0E-18	T99920.1	EST_HUMAN	y072b02.1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:123243 5' similar to contains OFR repetitive element;
10269	23169		0.67	1.0E-19	U60822.1	NT	Human dystrophin (DMD) gene, exons 7, 8 and 9, and partial cds
10684	23570	37000	44.92	1.0E-19	AW812259.1	EST_HUMAN	RC0-ST0174-181099-031-B05 ST0174 Homo sapiens cDNA
10693	23579	37009	1.07	1.0E-19	N44631.1	EST_HUMAN	y031c08.1 Soares melanocyte 2N6HM Homo sapiens cDNA clone IMAGE:272872 5'
12173	25009	38513	1.42	1.0E-19	U93163.1	NT	Homo sapiens IMAGE-B2 (IMAGE-B2), IMAGE-B3 (IMAGE-B3), IMAGE-B4 (IMAGE-B4), and IMAGE-B1 (IMAGE-B1) genes, complete cds
6938	19967	33189	2.31	8.0E-20	7657286	NT	Mus musculus keratin-associated protein 9-1 (Krtap9-1), mRNA
6938	19967	33190	2.31	8.0E-20	7657289	NT	Mus musculus keratin-associated protein 9-1 (Krtap9-1), mRNA
7941	20863	34172	1.43	8.0E-20	AI221371.1	EST_HUMAN	qg86109.x1 Soares NFL_T_GBC S1 Homo sapiens cDNA clone IMAGE:1842089 3'
7941	20863	34173	1.43	8.0E-20	AI221371.1	EST_HUMAN	qg86109.x1 Soares NFL_T_GBC S1 Homo sapiens cDNA clone IMAGE:1842089 3'
3320	16366	29268	0.7	7.0E-20	BF326455.1	EST_HUMAN	PM4-AN0096-050800-003-a04 AN0096 Homo sapiens cDNA
7338	18504	31279	5.51	7.0E-20	AL138120.1	EST_HUMAN	DKFZp547D092.1 547 (synonym: hfor1) Homo sapiens cDNA clone DKFZp547D092 5'
8314	21210	34555	0.42	7.0E-20	AF181887.1	NT	Homo sapiens WRN (WRN) gene, complete cds
9063	21992	35345	9.3	7.0E-20	AA557657.1	EST_HUMAN	rl46c04.s1 NCL_CGAP_P14 Homo sapiens cDNA clone IMAGE:1043718 similar to contains MER29.b2 MER28 repetitive element;
9063	21992	35346	9.3	7.0E-20	AA557657.1	EST_HUMAN	rl46c04.s1 NCL_CGAP_P14 Homo sapiens cDNA clone IMAGE:1043718 similar to contains MER29.b2 MER28 repetitive element;
12136	24976		4.6	7.0E-20	6912633	NT	Homo sapiens ribosomal protein L13a (RPL13A), mRNA



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3618	16652	29553	4.09	6.0E-20	P39188	SWISSPROT	ALU SUBFAMILY J SEQUENCE CONTAMINATION WARNING ENTRY
4371	17385	30249	4.76	6.0E-20	BE622434.1	EST_HUMAN	G01441231F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3916231 5'
4706	17711		1.5	5.0E-20	AV725123.1	EST_HUMAN	AV725123 HTC Homo sapiens cDNA clone H1C8TA01 5'
7474	20414	33692	1.63	5.0E-20	AF075301.1	EST_HUMAN	AF075301 Human fetal liver cDNA library Homo sapiens cDNA clone HAO250
8524	21455	34797	5.82	5.0E-20	W90525.1	EST_HUMAN	z78408.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:418191 3' similar to contains MER30.11 MER30 repetitive element.
8524	21465	34798	5.82	5.0E-20	W90525.1	EST_HUMAN	z78408.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:418191 3' similar to contains MER30.11 MER30 repetitive element.
8682	21613	34955	1	5.0E-20	BE165980.1	EST_HUMAN	MR3-HT0487-150200-113-g01 HT0487 Homo sapiens cDNA
9393	22321	35684	1.72	5.0E-20	AB028174.1	NT	Mus musculus MMAN-g mRNA, complete cds
9393	22321	35685	1.72	5.0E-20	AB028174.1	NT	Mus musculus MMAN-g mRNA, complete cds
9978	21336		1.13	5.0E-20	D60809	SWISSPROT	HYPOPHOSPHATASE 1
1643	14674	27639	1.55	4.0E-20	AL163247.2	NT	Homo sapiens chromosome 21 segment HS21C047
5845	18916		0.86	4.0E-20	Q99980	SWISSPROT	HISTONE H2B C (H2B/C)
8504	21435		4.77	4.0E-20	AB74352.1	EST_HUMAN	ts64g03.x1 NCI_CGAP_OV35 Homo sapiens cDNA clone IMAGE:2293396 3'
10977	23861	37289	1.49	4.0E-20	AW037469.1	EST_HUMAN	QV3-DT0043-090200-080-c04 DT0043 Homo sapiens cDNA
2153	15165	28167	0.99	3.0E-20	U03988.1	NT	Human BXP21 gene
4305	17319	30188	1.18	3.0E-20	P23273	SWISSPROT	OLFACTORY RECEPTOR-LIKE PROTEIN 114
4738	17743	30604	0.92	3.0E-20	AA037616.1	EST_HUMAN	z436b12.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:484895 3' similar to contains L1.13 L1 repetitive element.
8490	22418		2.55	3.0E-20	D14547.1	NT	Human DNA, SINE repetitive element
10810	23696	37122	1	3.0E-20	BF185284.1	EST_HUMAN	RETROVIRUS-RELATED POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ;
11107	24038		1.88	3.0E-20	P11389	SWISSPROT	ENDONUCLEASEI
12401	25173	31875	6.68	3.0E-20	BE888422.1	EST_HUMAN	G01514180F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3915522 5'
855	139C9		10.52	2.0E-20	AW303868.1	EST_HUMAN	x24610.x1 NCI_CGAP_U14 Homo sapiens cDNA clone IMAGE:2761098 3' similar to SW:RS6_MOUSE
1138	14180	27117	2.23	2.0E-20	AA516335.1	EST_HUMAN	ng69h09.s1 NCI_CGAP_Lip2 Homo sapiens cDNA clone IMAGE:940097 similar to TR:G1224066
1138	14180	27118	2.23	2.0E-20	AA516335.1	EST_HUMAN	G1224066 ORF2: FUNCTION UNKNOWN.
2864	13909		4.88	2.0E-20	AW303868.1	EST_HUMAN	ng69h09.s1 NCI_CGAP_Lip2 Homo sapiens cDNA clone IMAGE:940097 similar to TR:G1224066
5060	18057	30509	5.5	2.0E-20	Q28993	SWISSPROT	x24610.x1 NCI_CGAP_U14 Homo sapiens cDNA clone IMAGE:2761098 3' similar to SW:RS5_MOUSE
							ZONADHESIN PRECURSOR

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5060	18057	30910	5.5	2.0E-20	Q28983	SWISSPROT	ZONADHESIN PRECURSOR
8695	21828	34970	0.97	2.0E-20	AA309457.1	EST_HUMAN	EST1180326 Liver III Homo sapiens cDNA 5' end
9732	22657	36040	1.52	2.0E-20	D10083.1	NT	Homo sapiens RGH1 gene, retrovirus-like element
9732	22657	36041	1.52	2.0E-20	D10083.1	NT	Homo sapiens RGH1 gene, retrovirus-like element
12759	25707	31663	2.23	2.0E-20	H5371.1	EST_HUMAN	CHR220310 Chromosome 22 exon Homo sapiens cDNA clone C22_391 5'
2026	15855	28038	4.78	1.0E-20	AA281981.1	EST_HUMAN	z111406.r1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:712811 5' similar to contains MER19.12 MER19 repetitive element;
4548	17557	30417	1.75	1.0E-20	BF115158.1	EST_HUMAN	h184b06.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3135155 3' similar to contains L1.12 L1 repetitive element;
7222	20221	33469	0.77	1.0E-20	AF049567.1	EST_HUMAN	AF049567 Human activated dendritic cell mRNA Homo sapiens cDNA clone GA05
9708	22631	36010	2.38	1.0E-20	11418491	NT	Homo sapiens Autosomal Highly Conserved Protein (AHCP), mRNA
11985	24828	38325	2.7	1.0E-20	AF223391.1	NT	Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced
12513	25240		5.37	1.0E-20	AA420453.1	EST_HUMAN	nc60g08.r1 NCL_CGAP_P1 Homo sapiens cDNA clone IMAGE:745694 similar to contains L1.13 L1 repetitive element;
2955	18007		1.32	9.0E-21	AJ003514.1	EST_HUMAN	AJ003514 Selected chromosome 21 cDNA library Homo sapiens cDNA clone MPIp12-BJ21
12261	26079		3.64	9.0E-21	AW898189.1	EST_HUMAN	RC3-NN0068-090500-021-503 NN0068 Homo sapiens cDNA
9370	22288		1.32	8.0E-21	AW674891.1	EST_HUMAN	b630a02.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2984714 5' similar to SW:NIAM_HUMAN O95169 NADH-UBIQUINONE OXIDOREDUCTASE ASH1 SUBUNIT PRECURSOR;
11969	24812	38307	5.11	8.0E-21	AA809411.1	EST_HUMAN	cb71f06.s1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1336835 3'
12414	25183		6.13	8.0E-21	O21330	SWISSPROT	ATP SYNTHASE A CHAIN (PROTEIN 6)
2082	15096	28094	1.36	7.0E-21	P15800	SWISSPROT	LAMININ BETA-2 CHAIN PRECURSOR (S-LAMININ) (LAMININ CHAIN B3)
2082	15096	28095	1.36	7.0E-21	P15800	SWISSPROT	LAMININ BETA-2 CHAIN PRECURSOR (S-LAMININ) (LAMININ CHAIN B3)
3766	18788	28686	0.68	7.0E-21	AL163300.2	NT	Homo sapiens chromosome 21 segment HS21C100
4353	17367		6.58	7.0E-21	AA046502.1	EST_HUMAN	zk67a06.r1 Soares_pregnant_uterus_NBHPU Homo sapiens cDNA clone IMAGE:487858 5'
6702	19738	32040	1.03	7.0E-21	AL163218.2	NT	Homo sapiens chromosome 21 segment HS21C018
8959	21889	35247	1.67	7.0E-21	AJ277557.1	NT	Homo sapiens dNT-2 gene for mitochondrial 5'(3')-deoxyribonucleotidase (dNT-2 gene), exons 1-5
9234	22162	36518	8.52	7.0E-21	D14718.1	NT	Human chromosomal protein HMG1 related gene
10814	23500	36633	1.04	7.0E-21	AW866922.1	EST_HUMAN	RC0-CT0301-271169-031-F03 CT0301 Homo sapiens cDNA
							zg73d03.s1 Soares_fetal_heart_NbH19W Homo sapiens cDNA clone IMAGE:398981 3' similar to gb:M14338 VITAMIN K-DEPENDENT PROTEIN S PRECURSOR (HUMAN);contains THR.I3 OFF repetitive element;
11138	24067	37512	1.91	7.0E-21	AA723404.1	EST_HUMAN	Homo sapiens PTD013 protein (PTD013), mRNA
11713	24615	38091	1.91	7.0E-21	7706668	NT	

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4195	17215	30081	0.75	6.0E-21	BE408611.1	EST_HUMAN	601304125F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638310 5'
9679	22605		0.89	6.0E-21	BE182737.1	EST_HUMAN	PM1-HT0454-080100-002-h09 HT0454 Homo sapiens cDNA
962	14002	26947	1	5.0E-21	6602031	NT	Homo sapiens protein tyrosine phosphatase, non-receptor type 21 (PTPN21), mRNA
2299	15307	28313	0.98	5.0E-21	AA928194.1	EST_HUMAN	002711 PRO-POL-DUTPASE POLYPROTEIN ;
4470	17481	30340	3.73	5.0E-21	BE988839.1	EST_HUMAN	002393.s1 Scores_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1541908 3' similar to TR:002711
4799	14002	26947	0.75	5.0E-21	5502031	NT	601649871F1 NIH_MGC_74 Homo sapiens cDNA clone IMAGE:3933880 5'
4917	17916	30782	5.93	5.0E-21	4885474	NT	Homo sapiens protein tyrosine phosphatase, non-receptor type 21 (PTPN21), mRNA
7068	20274		0.88	5.0E-21	AW440864.1	EST_HUMAN	Homo sapiens melanoma antigen, family C, 1 (MAGEC1), mRNA
7362	20357	33626	0.97	5.0E-21	BE856505.1	EST_HUMAN	he05e10.x1 NCL_CGAP_OML1 Homo sapiens cDNA clone IMAGE:2918154 3'
12338	29133		1.74	5.0E-21	AA393574.1	EST_HUMAN	7f83d11.x1 NCL_CGAP_P728 Homo sapiens cDNA clone IMAGE:3303573 3' similar to contig OFR.11
1763	14789	27759	2.09	4.0E-21	AA970713.1	EST_HUMAN	OFR repetitive element ;
7197	20197	33443	2.34	4.0E-21	AB019576.1	NT	7f83d11.x1 Scores_NHT Homo sapiens cDNA clone IMAGE:727878 5'
							0088e08.s1 NCL_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1573094 3' similar to TR:Q18530 Q16530
							PMS3 MRNA ; contains OFR.11 OFR repetitive element ;
							Rattus norvegicus mRNA for rTIM, complete cds
10289	23189	36600	0.66	4.0E-21	U91328.1	NT	Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, ReRet gene, and sodium phosphate transporter (NPT3) gene, complete cds
1861	14883	27863	1.11	3.0E-21	AA218897.1	EST_HUMAN	zq15d06.s1 Striatogene fetal retina 937202 Homo sapiens cDNA clone IMAGE:629777 3'
2283	15301	28307	1.58	3.0E-21	AL163201.2	NT	Homo sapiens chromosome 21 segment HS21C001
3129	16179	28073	4.01	3.0E-21	AJ007973.1	NT	Homo sapiens LGMD2B gene
5689	18762	31686	0.86	3.0E-21	AJ277557.1	NT	Homo sapiens dNT-2 gene for mitochondrial 5'(-)-deoxyribonucleotidase (dNT-2 gene), exons 1-5
5689	18762	31687	0.86	3.0E-21	AJ277557.1	NT	Homo sapiens dNT-2 gene for mitochondrial 5'(-)-deoxyribonucleotidase (dNT-2 gene), exons 1-5
5941	19008		0.89	3.0E-21	AV681044.1	EST_HUMAN	AV681044 GLC Homo sapiens cDNA clone GLCGOAT0 3'
6420	19487		28.39	3.0E-21	BF184739.1	EST_HUMAN	601844485F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4064945 5'
7423	20122	33359	6.84	3.0E-21	BF361083.1	EST_HUMAN	RC1-OT0083-100800-019-g08 OT0083 Homo sapiens cDNA
10215	23105	36506	1.28	3.0E-21	AW897760.1	EST_HUMAN	CM1-NN0063-280400-203-h08 NN0063 Homo sapiens cDNA
12859	25882	31478	3.03	3.0E-21	AL163213.2	NT	Homo sapiens chromosome 21 segment HS21C013
166	13265		12.2	2.0E-21	BE163247.1	EST_HUMAN	QV3-HT0458-170200-090-g12 HT0458 Homo sapiens cDNA
1242	14278		1.69	2.0E-21	BE084410.1	EST_HUMAN	RC4-BT0311-141199-011-h08 BT0311 Homo sapiens cDNA
2085	15679	28678	2.58	2.0E-21	Q28983	SWISSPROT	ZONADHESIN PRECURSOR
2686	15679	28679	2.58	2.0E-21	Q28983	SWISSPROT	ZONADHESIN PRECURSOR

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4979	17977		1.08	2.0E-21	AW151673.1	EST_HUMAN	x167e10.x1 NCL_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2623146 3' similar to contains MER10.12 MER10 repetitive element;
5672	19746	31657		2.0E-21	AI624692.1	EST_HUMAN	163003.x1 NCL_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2230109 3' similar to TR:Q98854 Q98854 HYPOPHYSICAL 51.1 KD PROTEIN;
5768	18841	31942	0.87	2.0E-21	AA027211.1	EST_HUMAN	ze97a12.r1 Soares fetal heart NBHH19W Homo sapiens cDNA clone IMAGE:366910 5'
5768	18841	31943	0.87	2.0E-21	AA027211.1	EST_HUMAN	ze97a12.r1 Soares fetal heart NBHH19W Homo sapiens cDNA clone IMAGE:366910 5'
6266	19317	32482	0.59	2.0E-21	W44493.1	EST_HUMAN	z22802.r1 Soares senescent fibroblasts NBHSF Homo sapiens cDNA clone IMAGE:323687 5'
8848	21778	35125	0.61	2.0E-21	AJ010770.1	NT	Homo sapiens hyperion gene, exons 1-50
8936	21865	35223	7.76	2.0E-21	BE141785.1	EST_HUMAN	QVQ-HT0103-09:189-050-g11 HT0103 Homo sapiens cDNA
9382	22310	35671	3.96	2.0E-21	AU136778.1	EST_HUMAN	AU136778 PLAGE1 Homo sapiens cDNA clone PLACE1005052 5'
11498	24403		1.64	2.0E-21	BE350127.1	EST_HUMAN	h109g01.x1 NCL_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3148256 3' similar to contains MER29.b3 MER29 repetitive element;
11763	24654	38149	1.4	2.0E-21	BE973829.1	EST_HUMAN	601680636F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3951008 5'
11763	24654	38150	1.4	2.0E-21	BE973829.1	EST_HUMAN	601680636F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3951008 5'
12812	25304		7.32	2.0E-21	AF176815.1	NT	Homo sapiens putative 8-hydroxyguanine DNA glycosylase gene, complete cds
1283	14316	27265	1.25	1.0E-21	AA597667.1	EST_HUMAN	n146c04.s1 NCL_CGAP_P14 Homo sapiens cDNA clone IMAGE:1043718 similar to contains MER29.b2 MER29 repetitive element;
1428	14453		2.24	1.0E-21	AI601284.1	EST_HUMAN	ar88a12.x1 Barstead cdon HPLRB7 Homo sapiens cDNA clone IMAGE:2152343 3'
5176	18187	31012	0.67	1.0E-21	O76013	SWISSPROT	KERATIN, TYPE I CUTICULAR HA6 (HAIR KERATIN, TYPE I HA6)
5276	18292		0.91	1.0E-21	AF224669.1	NT	Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds
6782	19796		2.57	1.0E-21	AL079752.1	EST_HUMAN	DKFZp434I0830.r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434I0830 5'
7556	20493	33793	4.73	1.0E-21	AI223104.1	EST_HUMAN	qg47e05.x1 Soares testis NHT Homo sapiens cDNA clone IMAGE:1838336 3' similar to gb:M64241 QM PROTEIN (HUMAN);
11057	23941		1.57	1.0E-21	6730038	NT	Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA
12973	25535		1.46	1.0E-21	AF046133.1	NT	Homo sapiens chromosome Xp22 410-8
4517	17523	30392	1.88	9.0E-22	AI702438.1	EST_HUMAN	1284e03.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2268204 3' similar to TR:Q15408 Q15408 NEUTRAL PROTEINASE LARGE SUBUNIT;
11231	24157	37608	3.17	9.0E-22	AV761874.1	EST_HUMAN	AV761874 MDS Homo sapiens cDNA clone MDSGCCG05 5'
976	14027		5.48	8.0E-22	BE144748.1	EST_HUMAN	CM0-HT0179-281059-076-n05 HT0179 Homo sapiens cDNA
6676	19713	32607	0.5	8.0E-22	BF373321.1	EST_HUMAN	MR0-FT0144-120800-006-d08 FT0144 Homo sapiens cDNA
6876	19713	32808	0.5	8.0E-22	BF373321.1	EST_HUMAN	MR0-FT0144-120800-006-d08 FT0144 Homo sapiens cDNA
8476	21407		3.46	8.0E-22	AA046502.1	EST_HUMAN	zk67e05.r1 Soares pregnant uterus NBHPU Homo sapiens cDNA clone IMAGE:487658 5'
688	13749	26684	6.19	7.0E-22	AL163246.2	NT	Homo sapiens chromosome 21 segment HS21C046

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4381	17395	30260	3.42	7.0E-22	Q61838	SWISSPROT	ALPHA-2-MACROGLOBULIN PRECURSOR (ALPHA2M)
9248	22176		1.38	7.0E-22	AF151054.1	NT	Homo sapiens HSPC220 mRNA, complete cds
9390	22318	36680	2.29	7.0E-22	M78580.1	EST_HUMAN	EST00738 Fetal brain, <i>Stratagene</i> (cat#36206) Homo sapiens cDNA clone HFBCF07
10129	22020	36415	2.86	7.0E-22	AF009580.1	NT	Homo sapiens T cell receptor beta locus, TORBV7S9A2 to TORBV12S2 region
4148	17167	30041	1.02	6.0E-22	AA405040.1	EST_HUMAN	z65d10.r1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:742867 5'
8818	21748		2.18	6.0E-22	AW028123.1	EST_HUMAN	wx05g07.x1 NCL CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2542812 3'
6795	19828	33038	4	5.0E-22	AL163303.2	NT	Homo sapiens chromosome 21 segment HS21C103
10808	23694	37121	6.02	5.0E-22	U60822.1	NT	Human dystrophin (DMD) gene, exons 7, 8 and 9, and partial cds
12824	25443		2.77	6.0E-22	BF476511.1	EST_HUMAN	nae27b06.x1 NCL CGAP_P28 Homo sapiens cDNA clone IMAGE:3255898 3' similar to contains Alu repetitive element
3704	16736		1.17	4.0E-22	AJ271735.1	NT	Homo sapiens Xq pseudobulbosomal region; segment 1/2
8984	23989		2.42	4.0E-22	AL163202.2	NT	Homo sapiens chromosome 21 segment HS21C002
11165	24093	37541	2.39	4.0E-22	BF218030.1	EST_HUMAN	601882813F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4065434 5'
12978	25539		3.07	4.0E-22	AL163209.2	NT	Homo sapiens chromosome 21 segment HS21C009
985	14038		1.2	3.0E-22	AH469879.1	EST_HUMAN	tm14h10.x1 NCL CGAP_Co14 Homo sapiens cDNA clone IMAGE:2156611 3' similar to gbL19593 HIGH AFFINITY INTERLEUKIN-8 RECEPTOR B (HUMAN); contains L1.1 L1 repetitive element
2605	15603	28597	1.11	3.0E-22	AI859038.1	EST_HUMAN	wf68b04.x1 NCL CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2429839 3' similar to SW:RL21_HUMAN
3740	16772		1.6	3.0E-22	D14718.1	NT	P46778 60S RIBOSOMAL PROTEIN L21.; Human chromosomal protein HMG1 related gene
4918	17915	30781	3.05	3.0E-22	AI090125.1	EST_HUMAN	qb28c07.x1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:1697580 3' similar to contains MER12.12 MER12 repetitive element
8808	21738		1.04	3.0E-22	BE156813.1	EST_HUMAN	QV0-HT0368-090200-099-412 HT0368 Homo sapiens cDNA
8813	21743	36091	2.29	3.0E-22	BE089841.1	EST_HUMAN	RC5-BT0707-150300-021-H10 BT0707 Homo sapiens cDNA
8932	21862	35217	1.17	3.0E-22	XG0660.1	NT	R rattus RY2G5 mRNA for a potential ligand-binding protein
8932	21862	35218	1.17	3.0E-22	XG0660.1	NT	R rattus RY2G5 mRNA for a potential ligand-binding protein
1987	14985		3.78	2.0E-22	N24942.1	EST_HUMAN	Yv73405.s1 Soares melanocyte 2NbH-Homo sapiens cDNA clone IMAGE:267369 3'
2550	15550	28548	1.78	2.0E-22	P24916	SWISSPROT	IMMEDIATE EARLY GENE 13 PROTEIN PRECURSOR
3481	19521	29420	5.75	2.0E-22	8394043	NT	Homo sapiens protein kinase, AMP-activated, gamma 3 non-catalytic subunit (PRKAG3), mRNA
4325	17339	30204	1.49	2.0E-22	AW817794.1	EST_HUMAN	PM1-S10262-281199-001-412 S10262 Homo sapiens cDNA
6065	25638	32257	1.42	2.0E-22	W39456.1	EST_HUMAN	z620101.r1 Soares_gonocent_fibroblasts_NbHSF Homo sapiens cDNA clone IMAGE:322875 5' similar to gb:XT2308 MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (HUMAN);
6418	19465	32639	3.65	2.0E-22	BF092116.1	EST_HUMAN	RC0-TN0078-150900-025-H12 TN0078 Homo sapiens cDNA
10225	23116	36517	1.14	2.0E-22	AI276522.1	EST_HUMAN	q176h06.x1 Soares_NbHMPu_S1 Homo sapiens cDNA clone IMAGE:1878299 3' similar to contains MER29.13 MER29 repetitive element

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
10313	23202	36611	0.83	2.0E-22	AA715315.1	EST_HUMAN	nv04h11.s1 NCL CGAP_P22 Homo sapiens cDNA clone IMAGE:1219269 3'
10313	23202	36612	0.63	2.0E-22	AA715316.1	EST_HUMAN	nv04h11.s1 NCL CGAP_P22 Homo sapiens cDNA clone IMAGE:1219269 3'
12174	25010	38514	2	2.0E-22	AW418960.1	EST_HUMAN	ha24f04.x1 NCL CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2874655 3'
12232	25526	31746	2.75	2.0E-22	AL163280.2	NT	Homo sapiens chromosome 21 segment HS21C080
1801	14922	27902	3.28	1.0E-22	AW865517.1	EST_HUMAN	PM4-SN0020-010400-009-h02 SN0020 Homo sapiens cDNA
2621	15619	28612	2.77	1.0E-22	U50871.1	EST_HUMAN	Human familial Alzheimer's disease (STM2) gene, complete cds
3471	16511	28412	1.55	1.0E-22	D14947.1	NT	Human DNA, SINE repetitive element
8208	21112	34443	1.65	1.0E-22	BE084667.1	EST_HUMAN	MRO-BT0659-220200-002-h07 BT0659 Homo sapiens cDNA
11030	23914	37356	1.09	1.0E-22	A1365435.1	EST_HUMAN	qz09b07.x1 NCL CGAP_GLL1 Homo sapiens cDNA clone IMAGE:2020881 3' similar to contains MER28 b2
11030	23914	37357	1.09	1.0E-22	A1365435.1	EST_HUMAN	qz09b07.x1 NCL CGAP_GLL1 Homo sapiens cDNA clone IMAGE:2020881 3' similar to contains MER28 b2
13015	26562		10.07	9.0E-23	AW802801.1	EST_HUMAN	IL2-JM0076-070400-061-F11 UM0076 Homo sapiens cDNA
3631	16687	29584	0.87	8.0E-23	AF198349.1	EST_HUMAN	Gallus gallus Dack2 protein (Dack2) mRNA, complete cds
3359	16400		2	7.0E-23	AV647246.1	EST_HUMAN	AV647246 GLC Homo sapiens cDNA clone GLC-AWC07 3'
11476	24389	37839	4.29	7.0E-23	5031952	NT	Homo sapiens Not56 (D. melanogaster)-like protein (NOT56L) mRNA
3495	16534		1.88	6.0E-23	AF199333.1	NT	Rattus norvegicus RIM1B (Rim1B) mRNA, complete cds
4367	17381	30245	0.91	6.0E-23	AL163249.2	NT	Homo sapiens chromosome 21 segment HS21C049
12535	25256	31832	4.89	6.0E-23	AI209130.1	EST_HUMAN	qg59c03.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1839460 3' similar to SW:MV10_MOUSE_P23249 PROTEIN MOV-10 ;
5629	18705	31604					Homo sapiens chromosome Xq28 melanoma antigen family A2a (MAGEA2A), melanoma antigen family A12 (MAGEA12), melanoma antigen family A2b (MAGEA2B), melanoma antigen family A3 (MAGEA3), caltractin (CALT), NAD(P)H dehydrogenase-like protein (NSDHL), and L1>
6487	28849	32710	3.35	5.0E-23	U82671.2	NT	Pongo pygmaeus olfactory receptor (PPY116) gene, partial cds
7841	25649	32710	4.17	5.0E-23	AF178818.1	NT	Pongo pygmaeus olfactory receptor (PPY116) gene, partial cds
6708	19744	32946	3.31	5.0E-23	AF178818.1	NT	Homo sapiens chromosome 21 segment HS21C027
6708	19744	32947	0.86	3.0E-23	AL163227.2	NT	Homo sapiens chromosome 21 segment HS21C027
8421	21353	34691	3.67	3.0E-23	AA130165.1	EST_HUMAN	Z135g08.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:503968 5' similar to contains MER29 12 MER29 repetitive element ;
9791	22755	35138	3.65	3.0E-23	Z70664.1	NT	Human endogenous retroviral element HC2
9791	22755	35139	3.65	3.0E-23	Z70664.1	NT	Human endogenous retroviral element HC2
10808	23692		2.87	3.0E-23	AW897927.1	EST_HUMAN	RC3-NN0086-270400-011-h01 NN0086 Homo sapiens cDNA
689	13760	26665	3.22	2.0E-23	AJ289880.1	NT	Homo sapiens KIAA0851 gene (partial), X13 gene and LZTFL1 gene
1170	15948		3.25	2.0E-23	M55270.1	NT	Human matrix Gla protein (MGP) gene, complete cds

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2843	18832	28828	1.46	2.0E-23	P22105	SWISSPROT	TENASCIN-X PRECURSOR (TN-X) (HEXABRACHION-LIKE)
2843	18832	28829	1.46	2.0E-23	P22105	SWISSPROT	TENASCIN-X PRECURSOR (TN-X) (HEXABRACHION-LIKE)
3429	19470		1.19	2.0E-23	A1201458.1	EST_HUMAN	q87311.1 NCL CGAP_P428 Homo sapiens cDNA clone IMAGE:1943767 3' similar to TR:Q13637 Q13637
3780	18811		6.02	2.0E-23	BE165980.1	EST_HUMAN	NR3-HT0487-150200-113-g01 HT0487 Homo sapiens cDNA
4061	17087	28971	3.88	2.0E-23	H59931.1	EST_HUMAN	Y16a02.1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:205418 5'
4061	17087	28972	3.88	2.0E-23	H59931.1	EST_HUMAN	Y16a02.1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:205418 5'
							Homo sapiens cytochrome P450 polypeptide 43 (CYP3A43) gene, partial cds; cytochrome P450 polypeptide 4 (CYP3A4) and cytochrome P450 polypeptide 7 (CYP3A7) genes, complete cds; and cytochrome P450 polypeptide 5 (CYP3A5) gene, partial cds
8453	21385		7.43	2.0E-23	AF280107.1	NT	Homo sapiens chromosome 21 segment HS21C103
9402	22330	35692	1.35	2.0E-23	AL163303.2	NT	Human alcohol dehydrogenase gamma subunit (ADH3) gene, exon 1
12345	25138		5.2	2.0E-23	M32658.1	NT	Homo sapiens T cell receptor beta locus, TCRBV7S3A2 to TCRBV12S2 region
12832	25448		2.72	2.0E-23	AF009660.1	NT	Homo sapiens OVARC1 Homo sapiens cDNA clone OVARC1000946 5'
12946	25685		1.53	2.0E-23	AU133931.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C010
4879	17878		5.46	1.0E-23	AL163210.2	NT	Homo sapiens chromosome 21 segment HS21C010
7021	20047		3.5	1.0E-23	BE378471.1	EST_HUMAN	601236455F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608653 5'
							zw62c06.r1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:782698 5' similar to contains PTR5.12
8929	21859	35214	4.78	1.0E-23	AA448097.1	EST_HUMAN	PTR5 repetitive element;
11116	24046	37492	1.55	1.0E-23	BE409643.1	EST_HUMAN	601301762F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3636254 5'
11116	24046	37493	1.55	1.0E-23	BE409643.1	EST_HUMAN	601301762F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3636254 5'
							ab75a08.s1 Sratogene fetal retina 937202 Homo sapiens cDNA clone IMAGE:852759 3' similar to
574	13642		1.94	9.0E-24	AA663213.1	EST_HUMAN	TR:E19822 E19822 CA PROTEIN ;
4758	17763	30626	1.43	8.0E-24	P23268	SWISSPROT	OLFACTORY RECEPTOR-LIKE PROTEIN I3
4758	17763	30626	1.43	8.0E-24	P23268	SWISSPROT	OLFACTORY RECEPTOR-LIKE PROTEIN I3
6719	19755	32861	1.1	8.0E-24	11422027	NT	Homo sapiens capping protein (actin filament) muscle Z-line, alpha 2 (CAPZA2), mRNA
8393	21298	34827	0.47	8.0E-24	11422027	NT	Homo sapiens capping protein (actin filament) muscle Z-line, alpha 2 (CAPZA2), mRNA
3941	16969		1.03	7.0E-24	AW937954.1	EST_HUMAN	QV0-DT0047-170200-122-a08 DT0047 Homo sapiens cDNA
5317	18301		2.6	7.0E-24	AL039498.1	EST_HUMAN	DKFZp434A2311.1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434A2311 5'
729	13787		1.96	6.0E-24	AB001421.1	NT	Macaca fascicularis mRNA for Testis-Specific Protein Y (TSPY), complete cds
863	13917	26861	9.62	6.0E-24	AL163249.2	NT	Homo sapiens chromosome 21 segment HS21C049
4442	17453	30312	0.73	6.0E-24	P21440	SWISSPROT	MULTIDRUG RESISTANCE PROTEIN 2 (P-GLYCOPROTEIN 2)
4054	17081	28987	11.38	5.0E-24	AJ229043.1	NT	Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22, segment 3/3
							Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced
8225	21130	34461	0.89	5.0E-24	AF223391.1	NT	

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6154	19212	32352	3.15	4.0E-24	AA594178.1	EST_HUMAN	nm31h05.s1 NCL_CGAP_Gas1 Homo sapiens cDNA clone IMAGE:1085525 3' similar to SW:POL_MLVRK
9239	22167	35520	1.09	4.0E-24	AW813711.1	EST_HUMAN	P31788 POL POLYPROTEIN ;
11623	24630	37999	2.09	4.0E-24	BE544822.1	EST_HUMAN	RC3-ST0197-130100-014-f05 ST0197 Homo sapiens cDNA
12094	25351	31828	4.93	4.0E-24	AB029018.1	NT	601078812F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3464498 5'
							Homo sapiens mRNA for KIAA1093 protein, partial cds
12849	25706	31662	1.6	4.0E-24	M20707.1	NT	Human kappa-immunoglobulin germline pseudogene (Chr22.4) variable region (subgroup V kappa II)
7439	20181	33424	0.77	3.0E-24	U66061.1	NT	Human germline T-cell receptor beta chain TCRBV17S1A1T, TCRBV2S1, TCRBV10S1P, TCRBV29S1P, TCRBV19S1P, TCRBV15S1, TCRBV11S1A1T, HVB relic, TCRBV28S1P, TCRBV34S1, TCRBV14S1, TCRBV3S1, TCRBV4S1A1T, TRY4, TRY6, TRY8, TRY7, TRY8, TCRBD1, TCRBJ1S1, TCRBJ1S2>
7439	20181	33425	0.77	3.0E-24	U66061.1	NT	Human germline T-cell receptor beta chain TCRBV17S1A1T, TCRBV2S1, TCRBV10S1P, TCRBV29S1P, TCRBV19S1P, TCRBV15S1, TCRBV11S1A1T, HVB relic, TCRBV28S1P, TCRBV34S1, TCRBV14S1, TCRBV3S1, TCRBV4S1A1T, TRY4, TRY6, TRY8, TRY7, TRY8, TCRBD1, TCRBJ1S1, TCRBJ1S2>
8993	21822		2.99	3.0E-24	AW614871.1	EST_HUMAN	hh88c08.x1 NCL_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2987950 3' similar to contains MER29.b2
8048	21977		0.64	3.0E-24	AW962076.1	EST_HUMAN	MER29 repetitive element ;
9998	22815	36204	4.73	3.0E-24	AL163252.2	NT	EST374149 IMAGE resequences, MAGG Homo sapiens cDNA
12769	25309	31809	3.49	3.0E-24	BF127762.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C052
2369	15375	28377	2.69	2.0E-24	AA167539.1	EST_HUMAN	601810446F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4053396 5'
3863	16892		0.81	2.0E-24	AW898189.1	EST_HUMAN	zp11f09.r1 Stralagene fetal retina 637202 Homo sapiens cDNA clone IMAGE:809181 5'
7750	25983		0.58	2.0E-24	AL163209.2	NT	RC3-NN0088-060500-021-b03 NN0088 Homo sapiens cDNA
7894	20820	34126	0.95	2.0E-24	AF086824.1	NT	Homo sapiens chromosome 21 segment HS21C009
7899	20825	34129	0.54	2.0E-24	AJ003636.1	EST_HUMAN	Mus musculus thofrac-interacting citron kinase (Crik) mRNA, complete cds
9299	22227	35598	4.11	2.0E-24	AL119158.1	EST_HUMAN	AJ003538 Selected chromosome 21 cDNA library Homo sapiens cDNA clone MPIpl12-9H13
9337	22265		0.92	2.0E-24	H69214.1	EST_HUMAN	DKF2p761L1712_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKF2p761L1712 5'
10368	23257	36678	1.22	2.0E-24	AI521759.1	EST_HUMAN	lye2b09.r1 Soares fetal liver spleen tNFLS Homo sapiens cDNA clone IMAGE:212729 5' similar to contains
10368	23257	36679	1.22	2.0E-24	AI521759.1	EST_HUMAN	MER28 repetitive element ;
12621	25923		14.01	2.0E-24	M28877.1	NT	ii77a09.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2138008 3'
1722	14750	27718	2	1.0E-24	7706340	NT	Human O family dispersed repeat element
2722	15715		2.54	1.0E-24	AW820194.1	EST_HUMAN	Homo sapiens CGI-127 protein (LOC51646), mRNA
3066	16118	28019	0.81	1.0E-24	D86423.1	NT	QV0-ST0294-100400-185-c10 ST0294 Homo sapiens cDNA
							Human musculus mRNA for HGT keratin, partial cds



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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4369	17383		2.52	1.0E-24	AF143313.1	NT	Homo sapiens PTEN (PTEN) gene, exon 2
6668	19704	32899	1.03	1.0E-24	7106336	NT	Mus musculus keratin complex-1, gene C29 (K11-c29), mRNA
7979	20900	34215	5.06	1.0E-24	AL163303.2	NT	Homo sapiens chromosome 21 segment HS21C103
8193	21100	34430	0.8	1.0E-24	BE144526.1	EST_HUMAN	MR0-HT0166-271199-005-409 HT0166 Homo sapiens cDNA
8523	21454	34786	3.02	1.0E-24	AW901164.1	EST_HUMAN	CM0-NN1010-130300-281-407 NN1010 Homo sapiens cDNA
12121	24662	38465	1.87	9.0E-25	7706707	NT	Homo sapiens putative secreted protein (SIG11), mRNA
5117	18114	30959	5	7.0E-25	AA483944.1	EST_HUMAN	ne2e10.s1 NCI_CGAP_Kid1 Homo sapiens cDNA clone IMAGE:911754 similar to contains MER1.b2 MER1 repetitive element:
8797	21727	35076	7.33	7.0E-25	AA489646.1	EST_HUMAN	ne06a09.s1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:880408 3' similar to contains THR.b2 THR repetitive element:
12124	24966	39470	3.08	7.0E-25	AA593540.1	EST_HUMAN	nt25h08.s1 NCI_CGAP_P11 Homo sapiens cDNA clone IMAGE:914843 similar to SW:R14A_YEAST
7332	18500		4.99	6.0E-26	W87623.1	EST_HUMAN	P36105 PROBABLE 60S RIBOSOMAL PROTEIN L14EA ; z185h07.r1 Soares fetal liver spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:416989 5'
8183	21090	34422	11.36	6.0E-25	7305360	NT	Mus musculus clogelin (Clog), mRNA
1678	14708	27671	1.99	5.0E-25	AW850271.1	EST_HUMAN	IL3-CT0219-161199-031-D04 CT0219 Homo sapiens cDNA
11761	24662	38147	2.97	5.0E-25	AW978107.1	EST_HUMAN	EST391217 IMAGE resequences, MAGP Homo sapiens cDNA
1466	14497	27458	2.85	4.0E-25	T88107.1	EST_HUMAN	ye56h04.r1 Soares fetal liver spleen_1NFLS_Homo sapiens cDNA clone IMAGE:121783 5'
3462	16502		3.81	4.0E-25	AW887671.1	EST_HUMAN	PM3-OT0093-280200-001-g07 OT0093 Homo sapiens cDNA
3977	17005	29893	1.52	4.0E-25	AF000368.1	NT	Rattus norvegicus voltage-gated sodium channel mRNA, complete cds
4421	17432		4.88	4.0E-25	BE170957.1	EST_HUMAN	QV3-HT0543-140400-149-e11 HT0543 Homo sapiens cDNA
10449	23338	36765	0.62	4.0E-25	AA383873.1	EST_HUMAN	EST97317 Thymus I Homo sapiens cDNA 5' end similar to EST containing O family repeat
3365	16409	29310	4.59	3.0E-25	8923321	NT	Homo sapiens hypothetical protein FLJ20344 (FLJ20344), mRNA
3365	16409	29311	4.59	3.0E-25	8923321	NT	Homo sapiens hypothetical protein FLJ20344 (FLJ20344), mRNA
5002	18001	30856	0.83	3.0E-25	P29822	SWISSPROT	KALLISTATIN PRECURSOR (KALLIKREIN INHIBITOR) (PROTEASE INHIBITOR 4)
5374	18366	31186	1	3.0E-25	H52187.1	EST_HUMAN	yr60b11.r1 Soares fetal liver spleen_1NFLS_Homo sapiens cDNA clone IMAGE:208661 5' similar to contains MER8 repetitive element:
5991	19058	32183	0.48	3.0E-25	U53212.1	NT	Human degenerate channel MDEG mRNA, partial cds
6902	18932	33150	0.58	3.0E-25	AA603560.1	EST_HUMAN	np27b02.s1 NCI_CGAP_P122 Homo sapiens cDNA clone IMAGE:1117515 3' similar to gb:M61866 ZINC FINGER PROTEIN 85 (HUMAN);
8912	21842	35195	4.08	3.0E-25	AL183210.2	NT	Homo sapiens chromosome 21 segment HS21C010
11473	24386	37836	2.04	3.0E-25	AA579013.1	EST_HUMAN	nt30h10.s1 NCI_CGAP_P11 Homo sapiens cDNA clone IMAGE:915331 similar to contains L1.11 L1 repetitive element:
1376	14408	27362	2.4	2.0E-25	5032158	NT	Homo sapiens transducin (beta)-like 1 (TBL1) mRNA
2329	18337	28341	7.65	2.0E-25	BE888016.1	EST_HUMAN	601511530F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913087 5'

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2878	15572	28569	3.22	2.0E-25	P17008	SWISSPROT	40S RIBOSOMAL PROTEIN S16
4286	17300	30187	1.93	2.0E-25	P17008	SWISSPROT	40S RIBOSOMAL PROTEIN S16
4286	17300	30188	1.93	2.0E-25	P17008	SWISSPROT	40S RIBOSOMAL PROTEIN S16
10285	23175	36587	1.68	2.0E-25	AL449573.1	EST_HUMAN	AL449573 Homo sapiens Testis (Starides GS) Homo sapiens cDNA
386	13469	26387	0.83	1.0E-25	AL040229.1	EST_HUMAN	DKFZp434H0313.1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434H0313.5
1276	14310		2.3	1.0E-25	8635487	NT	Human endogenous retrovirus, complete genome
4959	17867	30826	2.68	1.0E-25	BE162737.1	EST_HUMAN	PM1-HT0454-080100-002-H09 HT0454 Homo sapiens cDNA
6848	19890		0.99	1.0E-25	AA189080.1	EST_HUMAN	z44506.s1 Striatagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:832627 3' similar to contains Alu repetitive element
7105	25667	33574	2.81	1.0E-25	AA582860.1	EST_HUMAN	m54h11.s1 NCL CGAP_KH6 Homo sapiens cDNA clone IMAGE:1087749 3'
8144	21053	34385	0.49	1.0E-25	Q8JUL58	SWISSPROT	ZINC FINGER PROTEIN 215 (BWSR2 ASSOCIATED ZINC-FINGER PROTEIN BAZ2)
8493	21424	34764	6	1.0E-25	AA709079.1	EST_HUMAN	z96g04.s1 Soares_fetal_heart_NH119W Homo sapiens cDNA clone IMAGE:384822 3' similar to contains PTR5.3 PTR5 repetitive element
10075	22990	36385	6.69	1.0E-25	X60660.1	NT	R.rattus RY2G5 mRNA for a potential ligand-binding protein
10075	22990	36388	6.69	1.0E-25	X60660.1	NT	R.rattus RY2G5 mRNA for a potential ligand-binding protein
11409	24324	37774	3.18	1.0E-25	U63163.1	NT	Homo sapiens IMAGE-B2 (MAGE-B2), MAGE-B3 (MAGE-B3), MAGE-B4 (MAGE-B4), and MAGE-B1 (MAGE-B1) genes, complete cds
12358	25147	38170	1.65	1.0E-25	D14547.1	NT	Human DNA, SINE repetitive element
12358	25147	38171	1.65	1.0E-25	D14547.1	NT	Human DNA, SINE repetitive element
2505	15508	26508	1.87	9.0E-26	AL103218.2	NT	Homo sapiens chromosome 21 segment HS21C018
12233	25725		1.52	9.0E-26	AL163285.2	NT	Homo sapiens chromosome 21 segment HS21C085
5892	18861		2.09	8.0E-26	D14547.1	NT	Human DNA, SINE repetitive element
1599	14630	27589	3.97	7.0E-26	AF003528.1	NT	Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions
4065	17091	29076	1.29	7.0E-26	X89211.1	NT	H. sapiens DNA for endogenous retroviral like element
4258	17272	30139	1.96	7.0E-26	AW340153.1	EST_HUMAN	h02612.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2908368 3'
5834	18905	32020	1.05	7.0E-26	AL163202.2	NT	Homo sapiens chromosome 21 segment HS21C002
12094	24835		8.16	7.0E-26	AA115895.1	EST_HUMAN	zn30408.r1 Striatagene neuroepithelium NT2RAM1 937234 Homo sapiens cDNA clone IMAGE:548943 5' similar to gb:M14338 VITAMIN K-DEPENDENT PROTEIN S PRECURSOR (HUMAN)
12874	25474		10.79	7.0E-26	AW954559.1	EST_HUMAN	EST368629 MAGE resequences, MAGE Homo sapiens cDNA
2238	15248	28255	3.72	6.0E-26	AF029308.1	NT	Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and tyrosinogen gene families
3395	18437	29341	1.1	6.0E-26	AA205131.1	EST_HUMAN	zq52h04.r1 Striatagene neuroepithelium (#937233) Homo sapiens cDNA clone IMAGE:645271 5'
12109	24949	38432	2.01	6.0E-26	AL163210.2	NT	Homo sapiens chromosome 21 segment HS21C010

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1205	14244	27185	2.37	5.0E-26	A1708235.1	EST_HUMAN	as38108.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2319519 3' similar to WP:F49C12.11 CE03371 ;
1205	14244	27186	2.37	5.0E-26	A1708235.1	EST_HUMAN	as38108.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2319519 3' similar to WP:F49C12.11 CE03371 ;
9046	22851		2.84	4.0E-26	7657670	NT	Homo sapiens upstream binding transcription factor, RNA polymerase I (UBTF), mRNA
11103	24034	37479	3.09	4.0E-26	BE266187.1	EST_HUMAN	601191345F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3535210 5'
1783	14809	27777	1.27	3.0E-28	D14847.1	NT	Human DNA, SINE repetitive element
2019	15037	28031	0.97	3.0E-26	AL045855.2	EST_HUMAN	DKFZp4341066_l1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp4341066 5'
2045	15062		10.68	3.0E-26	AA115895.1	EST_HUMAN	zn30d08.r1 Stralagene neuroepithelium NT2RAW1 937234 Homo sapiens cDNA clone IMAGE:548943 5' similar to gb:M14338 VITAMIN K-DEPENDENT PROTEIN S PRECURSOR (HUMAN);
3845	16874	29757	1.75	3.0E-26	AA152464.1	EST_HUMAN	zo30110.r1 Stralagene colon (#937204) Homo sapiens cDNA clone IMAGE:588427 5' similar to TR:G685374
3845	16874	29758	1.75	3.0E-26	AA152464.1	EST_HUMAN	G685374 THYROID RECEPTOR INTERACTOR ;
7239	20148	33388	11.15	3.0E-26	BF245456.1	EST_HUMAN	zo30110.r1 Stralagene colon (#937204) Homo sapiens cDNA clone IMAGE:588427 5' similar to TR:G685374
12000	24842	38338	2.25	3.0E-26	AW875651.1	EST_HUMAN	G685374 THYROID RECEPTOR INTERACTOR ;
12000	24842	38339	2.25	3.0E-26	AW875651.1	EST_HUMAN	G685374 THYROID RECEPTOR INTERACTOR ;
12032	24874	38379	6.6	3.0E-26	AA683173.1	EST_HUMAN	QV2-PT0012-040400-124-405 PT0012 Homo sapiens cDNA
12225	25059	38557	1.59	3.0E-26	AF228925.1	NT	QV2-PT0012-040400-124-405 PT0012 Homo sapiens cDNA
13037	25574		1.82	3.0E-26	AW073434.1	EST_HUMAN	nr37d05.s1 NCL_CGAP_GCS Homo sapiens cDNA clone IMAGE:1086057 3' similar to contains OFR.t1 OFR repetitive element ;
705	13764	26681	4.54	2.0E-26	AL163282.2	NT	Mus musculus harmonin isoform b3 (Ush1c) mRNA, complete cds, alternatively spliced
1891	14912		3.43	2.0E-26	AL038089.2	EST_HUMAN	xa57b09.x1 NCL_CGAP_HSC2 Homo sapiens cDNA clone IMAGE:2570873 3' similar to contains MER30.11
3278	16326	29732	6.59	2.0E-26	X86694.1	NT	MER30 repetitive element ;
11194	24120		2.8	2.0E-26	D87675.1	NT	Homo sapiens chromosome 21 segment HS21C082
11666	24571	38047	2.9	2.0E-26	AB01412.1	EST_HUMAN	DKFZp566L171_s1 566 (synonym: htkd2) Homo sapiens cDNA clone DKFZp566L171 3'
11851	24701		2.02	2.0E-26	AF055066.1	NT	Mus musculus mRNA for astrocytic phosphoprotein, PEA-15
12454	25204		2.34	2.0E-26	AB037850.1	NT	Homo sapiens DNA for amyloid precursor protein, complete cds
12640	25876	31475	2.85	2.0E-26		NT	to89a01.x1 NCL_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2185416 3' similar to contains Alu repetitive element/contains element MER20 MER20 repetitive element ;
141	13243	26161	8.54	1.0E-26	BE170371.1	EST_HUMAN	Homo sapiens MHC class I region
2061	16077	28077	1.52	1.0E-26	AL039363.2	EST_HUMAN	Homo sapiens mRNA for KIAA1438 protein, partial cds
2598	15596	28591	1.04	1.0E-26	BE814995.1	EST_HUMAN	Homo sapiens chromosome 12 open reading frame 3 (G12ORF3), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2738	15729		5.44	1.0E-26	AF281085.1	NT	Homo sapiens glyceraldehyde-3-phosphate dehydrogenase (GADPH) mRNA, complete cds
4058	17084		7.62	1.0E-26	AL163202.2	NT	Homo sapiens chromosome 21 segment HS21C002
7155	20263		2.7	1.0E-26	BE165980.1	EST_HUMAN	MR3-HT0487-150200-113-g01 HT0487 Homo sapiens cDNA
11331	24250		2.15	1.0E-26	AL038487.1	EST_HUMAN	DKFZp666C2146_r1 566 (synonym: hfk42) Homo sapiens cDNA clone DKFZp666C2146 6'
12682	25947		2.96	1.0E-26	H55093.1	EST_HUMAN	CHR220032 Chromosome 22 exon Homo sapiens cDNA clone C22_45 5'
8020	20936		1.2	9.0E-27	BF37127.1	EST_HUMAN	RC8-FND138-110800-022-A02 FND138 Homo sapiens cDNA
8843	22851		4.28	9.0E-27	U93163.1	NT	Homo sapiens IMAGE-B2 (IMAGE-B2), IMAGE-B3 (IMAGE-B3), IMAGE-B4 (IMAGE-B4), and IMAGE-B1 (IMAGE-B1) genes, complete cds
12236	25065		4.82	9.0E-27	BF445656.1	EST_HUMAN	nae03c07.x1 NCL_OGAP_P128 Homo sapiens cDNA clone IMAGE:3253644 3' similar to contains OFR.t1 OFR repetitive element ;
11	13126	26012	2.93	8.0E-27	AI831462.1	EST_HUMAN	W49c04.x1 NCL_OGAP_Lu19 Homo sapiens cDNA clone IMAGE:2408150 3' similar to contains THR.b2 THR repetitive element ;
579	13647		5.38	8.0E-27	AL163227.2	NT	Homo sapiens chromosome 21 segment HS21C027
1439	14470	27426	7.31	8.0E-27	AW162737.1	EST_HUMAN	au87n08.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783295 3' similar to gb:K00558
1439	14470	27427	7.31	8.0E-27	AW162737.1	EST_HUMAN	TUBULIN ALPHA-1 CHAIN (HUMAN);
2180	15191	26198	0.93	8.0E-27	AW864776.1	EST_HUMAN	au87n08.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783295 3' similar to gb:K00558
3228	16276	29177	1.44	8.0E-27	P12236	SWISSPROT	TUBULIN ALPHA-1 CHAIN (HUMAN);
3402	16444	29351	0.73	8.0E-27	AF181897.1	NT	PM2-SN0018-220300-002-e07 SN0018 Homo sapiens cDNA
5893	18962	32080	0.58	8.0E-27	AV732214.1	EST_HUMAN	ADP.ATP CARRIER PROTEIN, LIVER ISOFORM T2 (ADP/ATP TRANSLOCASE 3) (ADENINE NUCLEOTIDE TRANSLOCATOR 3) (ANT 3)
7318	18466		3.29	8.0E-27	BE926560.1	EST_HUMAN	Homo sapiens WRN (WRN) gene, complete cds
7399	20059	33332	2.38	8.0E-27	N84970.1	EST_HUMAN	AV732214 HTF Homo sapiens cDNA clone HTFBC08 5'
9750	22674	36059	1.69	8.0E-27	AW867579.1	EST_HUMAN	MR4-BT0398-250800-204-d06 BT0398 Homo sapiens cDNA
707	13766		1.29	7.0E-27	Z70884.1	NT	J1751F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone J1751 5' similar to REPETITIVE ELEMENT L1
6224	18213		2.47	7.0E-27	AW628172.1	EST_HUMAN	Human endogenous retroviral element HC2
6310	19360	32530	0.53	7.0E-27	X65747.1	NT	h51h12.x1 Soares, NFL, I, GBC, S1 Homo sapiens cDNA clone IMAGE:2978679 3' similar to TR:O78040
9416	22344		0.93	7.0E-27	D86984.1	NT	O78040 ORF2: FUNCTION UNKNOWN ;
11190	24116		4.48	7.0E-27	AJ271735.1	NT	R.norvegicus gnat-3 mRNA for gustducin
11168	24059	37543	2.67	6.0E-27	M26697.1	NT	Human mRNA for KIAA0231 gene, partial cds
							Homo sapiens Xq pseudoautosomal region; segment 1/2
							Human nucleolar protein (B23) mRNA, complete cds

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
12201	25036	38537	1.39	6.0E-27	U93163.1	NT	Homo sapiens IMAGE-B2 (IMAGE-B2), IMAGE-B3 (IMAGE-B3), IMAGE-B4 (IMAGE-B4), and IMAGE-B1 (IMAGE-B1) genes, complete cds
8249	21164		18.36	5.0E-27	AL163303.2	NT	Homo sapiens chromosome 21 segment HS21C103
10731	23817	37044	3.65	5.0E-27	BF698814.1	EST_HUMAN	602121491F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4278527 5'
10731	23817	37045	3.65	5.0E-27	BF686614.1	EST_HUMAN	602121491F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4278527 5'
2405	15410	28413	1.44	4.0E-27	D25303.1	NT	Human mRNA for Integrin alpha subunit, complete cds
7049	20074	33307	1.55	4.0E-27	9910569	NT	Mus musculus sperm tail associated protein (Stp), mRNA
8518	21449		1.03	4.0E-27	AL163209.2	NT	Homo sapiens chromosome 21 segment HS21C009
8563	21494		1.45	4.0E-27	AF078779.1	NT	Rattus norvegicus putative four repeat ion channel mRNA, complete cds
10284	23154	36564	0.68	4.0E-27	AW880859.1	EST_HUMAN	QV0-OT0033-070300-162-b10 OT0033 Homo sapiens cDNA
12033	24875	36380	1.99	4.0E-27	X89211.1	NT	H. sapiens DNA for endogenous retroviral like element
2055	15072	28073	4.43	3.0E-27	X60658.1	NT	R. rattus RYA3 mRNA for a potential ligand-binding protein
4370	17394	30248	1.48	3.0E-27	BE071924.1	EST_HUMAN	PM0-BT0527-090100-001-d11 BT0527 Homo sapiens cDNA
5530	18609	31458	0.41	3.0E-27	AA07705.1	EST_HUMAN	7B44C08 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B44C08
8294	21198	34534	0.91	3.0E-27	BE670351.1	EST_HUMAN	7e33102.X1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284283 3'
8845	22863	36342	4.43	3.0E-27	BF035327.1	EST_HUMAN	601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862088 5'
44	13160	26051	10.46	2.0E-27	AF054187.1	NT	Homo sapiens alpha NAC mRNA, complete cds
1913	14934		18.23	2.0E-27	AA585345.1	EST_HUMAN	nc01b10.s1 NCI_CGAP_P111 Homo sapiens cDNA clone IMAGE:1000699 similar to gb:M17886 60S
3155	18205		17.02	2.0E-27	AW628172.1	EST_HUMAN	h151h12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2875879 3' similar to TR:O76040
3271	16319	29222	1.28	2.0E-27	AF111167.2	NT	Homo sapiens Jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene
3271	16319	29223	1.28	2.0E-27	AF111167.2	NT	Homo sapiens Jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene
6972	19998	33229	0.64	2.0E-27	H02655.1	EST_HUMAN	y36a01.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:150840 5' similar to
8669	21600	34940	0.94	2.0E-27	A1868347.1	EST_HUMAN	SP:HMGC_MOUSE Q02691 HOMEOBOX PROTEIN ;
6809	22716		2.52	2.0E-27	AA561627.1	EST_HUMAN	w28g07.x1 NCI_CGAP_U11 Homo sapiens cDNA clone IMAGE:2426288 3'
10310	23199	36609	0.61	2.0E-27	X60658.1	NT	rh08h05.s1 NCI_CGAP_Thy1 Homo sapiens cDNA clone IMAGE:943737 similar to contains L1, l3 L1 repetitive element ;
10538	23424	36840	1.06	2.0E-27	M78590.1	EST_HUMAN	R. rattus RYA3 mRNA for a potential ligand-binding protein
10538	23424	36841	1.06	2.0E-27	M78590.1	EST_HUMAN	EST00738 Fetal brain, Stralagene (cat#938206) Homo sapiens cDNA clone HFBCF07
11393	24309	37755	3.01	2.0E-27	AU121685.1	EST_HUMAN	EST00738 Fetal brain, Stralagene (cat#938206) Homo sapiens cDNA clone HFBCF07
							AU121685 MAMMA1 Homo sapiens cDNA clone MAMMA1000746 6'

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11919	14934		8.23	2.0E-27	AA655346.1	EST_HUMAN	nk01b10.s1 NCL CGAP_P111 Homo sapiens cDNA clone IMAGE:1000699 similar to gb:M17886 60S
459	13531		1.19	1.0E-27	AL163246.2	NT	ACIDIC RIBOSOMAL PROTEIN P1 (HUMAN);
1024	14073	27014	1.05	1.0E-27	AB026898.1	NT	Homo sapiens chromosome 21 segment HS21C046
1724	14762	27720	1.37	1.0E-27	4827058	NT	Homo sapiens DNA, DEC1 to ORCTL4 gene (region, section 1/2 (DEC1, ORCTL3, ORCTL4 genes, complete cds)
4168	17189		1.22	1.0E-27	BE350127.1	EST_HUMAN	Homo sapiens xylulokinase (H. influenzae) homolog (XVLB) mRNA
6823	19856	33068	6.79	1.0E-27	6005855	NT	h09g01.x1 NCL CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3148256 3' similar to contains MER29.b3
7198	20196	33441	1.81	1.0E-27	F30158.1	EST_HUMAN	Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA
7198	20196	33442	1.81	1.0E-27	F30158.1	EST_HUMAN	HSPD20461 HM3 Homo sapiens cDNA clone t4000095C10
9171	22099	35460	1.14	1.0E-27	AB007923.1	NT	HSPD20461 HM3 Homo sapiens cDNA clone t4000095C10
9537	22484		1.76	1.0E-27	BE079780.1	EST_HUMAN	Homo sapiens mRNA for KIAA0454 protein, partial cds
10243	23134	35539	3.02	1.0E-27	D87449.1	NT	RC8-BT0627-140200-011-E06 BT0627 Homo sapiens cDNA
12128	24969	38473	3.74	1.0E-27	AF111093.1	NT	Human mRNA for KIAA0260 gene, partial cds
147	13246		1.86	9.0E-28	BE348399.1	EST_HUMAN	Bos taurus latrophilin 3 splice variant b3ah mRNA, complete cds
331	13421	26337	2.38	9.0E-28	AU126260.1	EST_HUMAN	hw17c11.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3183188 3' similar to TR:Q07314 Q07314
12307	25114		7.03	9.0E-28	BF377859.1	EST_HUMAN	SECRETED NEUREXIN III-ALPHA-C PRECURSOR, [3] TR:Q07280 TR:Q07313 ;
12603	25803		4.27	8.0E-28	AW157571.1	EST_HUMAN	AU126260 NT2RP1 Homo sapiens cDNA clone NT2RP1000443 5'
1209	14248	27189	8.25	7.0E-28	AU142750.1	EST_HUMAN	GM2-TN0140-070900-372-g01 TN0140 Homo sapiens cDNA
11632	24538	38009	2.12	7.0E-28	11417868	NT	eu83h08.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782911 3' similar to
12288	25085		4.39	7.0E-28	AV735348.1	EST_HUMAN	TR:Q0302 Q0302 KIAA0555 PROTEIN, contains element MER22 repetitive element ;
9475	22403		1.48	6.0E-28	AF016052.1	NT	AU142750 Y79AA1 Homo sapiens cDNA clone Y79AA1000824 5'
12848	25460		6.74	6.0E-28	AA504592.1	EST_HUMAN	Homo sapiens gamma-glutamyltransferase-like activity 1 (GGTLA1), mRNA
338	13428		2.24	5.0E-28	AB21003.1	EST_HUMAN	AV735348 CB Homo sapiens cDNA clone CBF:AKA12 5'
4094	17119	28898	1.51	6.0E-28	R70762.1	EST_HUMAN	Homo sapiens zinc finger protein ZNF191 (ZNF191) gene, complete cds
2871	15697	28687	2.17	4.0E-28	AW195066.1	EST_HUMAN	aa0603.r1 NCL CGAP_GCB1 Homo sapiens cDNA clone IMAGE:825340 5' similar to contains Alu
7714	20846	33943	2.02	4.0E-28	AI198941.1	EST_HUMAN	repetitive element; contains element P TR5 repetitive element ;
							wa018c07.x1 NCL CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2459592 3' similar to contains THR.b1
							TH-R repetitive element ;
							y88f10.r1 Scores placenta Nb2HP Homo sapiens cDNA clone IMAGE:146443 5'
							xn33c09.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2695504 3' similar to SW:GG95_HUMAN
							Q06379 GOLGIN-95 ;
							qf68f10.x1 Scores_testis_NHT Homo sapiens cDNA clone IMAGE:1755019 3' similar to gb:M19503 LINE-1
							REVERSE TRANSCRIPTASE HOMOLOG (HUMAN);

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11300	24219		3.24	4.0E-28	AF029308.1	NT	Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and tryptophan gene families
11444	24360		29.1	4.0E-28	AB038241.1	NT	Felis catus GAPDH mRNA for glyceraldehyde-3-phosphate dehydrogenase, complete cds
11465	20846	33943	4.95	4.0E-28	AI198941.1	EST_HUMAN	qf66f10.x1 Soares testis NHT Homo sapiens cDNA clone IMAGE:1755019 3' similar to gb:M19503 LINE-1
12654	25327		1.71	4.0E-28	AW854244.1	EST_HUMAN	REVERSE TRANSCRIPTASE HOMOLOG (HUMAN);
1309	14342		2.17	3.0E-28	AF155382.1	NT	RC3-CT0254-240400-210-112 CT0254 Homo sapiens cDNA
5267	18263		1.32	3.0E-28	AF009680.1	NT	Homo sapiens metalloprotease-like, disintegrin-like, cysteine-rich protein 2 epsilon (ADAM22) mRNA, complete cds
9386	22314	35676	2.31	3.0E-28	BF354030.1	EST_HUMAN	Homo sapiens T cell receptor beta locus, TCRB/7S3A2 to TCRBV12S2 region
11374	24290	37734	1.65	3.0E-28	U53588.1	NT	NR3-HT0713-280500-013-09 HT0713 Homo sapiens cDNA
12680	25340		3.12	3.0E-28	AI831991.1	EST_HUMAN	Homo sapiens MHC class 1 region
12707	25423		2.7	3.0E-28	BE082801.1	EST_HUMAN	wj98f07.x1 NCI_CGAP_Lym12 Homo sapiens cDNA clone IMAGE:2410885 3' similar to contains Alu repetitive element; contains element HGR repetitive element
91	13204	26117	6.06	2.0E-28	BE082167.1	EST_HUMAN	RC2-BT0642-210200-013-f03 BT0642 Homo sapiens cDNA
1192	14231	27170	9.59	2.0E-28	Y11107.3	NT	RC1-BT0254-220300-019-c05 BT0254 Homo sapiens cDNA
2499	15501	28502	2.03	2.0E-28	AI348634.1	EST_HUMAN	Homo sapiens ITGB4 gene for integrin beta 4 subunit, exons 3-41
3417	16459	28365	0.71	2.0E-28	AL163209.2	NT	qp35b06.x1 NCI_CGAP_Lu6 Homo sapiens cDNA clone IMAGE:1910483 3' similar to contains L1.b2 L1 repetitive element
6562	19603	32789	1.36	2.0E-28	BF224402.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C009
6587	19628		4.16	2.0E-28	BF212805.1	EST_HUMAN	hr76c03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134404 3' similar to contains LOR1.b1 LOR1 repetitive element
8822	21553	34895	0.75	2.0E-28	AF005273.1	NT	601814198F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4048731 5'
10113	23004		4.86	2.0E-28	AW972305.1	EST_HUMAN	Sus scrofa domestica submaxillary apomucin mRNA, complete cds
12682	25333		2.45	2.0E-28	H06376.1	EST_HUMAN	EST1384394 IMAGE:190900-019-c05 BT0254 Homo sapiens cDNA
1497	14528	27491	2.43	1.0E-28	D38044.1	NT	y79c09.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:44300 5'
2234	15244	28262	2.64	1.0E-28	BF333236.1	EST_HUMAN	Human gene for Ah-receptor, exon 7-9
8442	21374		4.03	1.0E-28	11429883	NT	QV1-BT0821-120900-360-b03 BT0821 Homo sapiens cDNA
8597	21528		3.55	1.0E-28	8922793	NT	Homo sapiens similar to ribosomal protein L12 (H. sapiens) (LOC830891), mRNA
9818	22724	36107	4.34	1.0E-28	AA308744.1	EST_HUMAN	Homo sapiens hypothetical protein FLJ10968 (FLJ10968), mRNA
10388	23277	36698	5.69	1.0E-28	4758431	NT	EST179615 HCC cell line (matelastis to liver in mouse) (Homo sapiens cDNA 5' end similar to retroviral LTR
10388	23277	36699	5.69	1.0E-28	4758431	NT	Homo sapiens gamma-glutamyltransferase-like activity 1 (GGTLA1), mRNA
12273	28089		7.93	1.0E-28	AA054182.1	EST_HUMAN	Homo sapiens gamma-glutamyltransferase-like activity 1 (GGTLA1), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
12972	25710		1.89	1.0E-28	AL163247.2	NT	Homo sapiens chromosome 21 segment HS21C047
13067	26899	31361	3.13	9.0E-29	AW663987.1	EST_HUMAN	h17g06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2978266 3'
12767	25396		3.07	8.0E-29	Q00130	SWISSPROT	HYPOTHETICAL GENE 50 PROTEIN
1625	14655	27619	1.18	7.0E-29	AW96947.1	EST_HUMAN	EST376521 IMAGE resequences, MAGI Homo sapiens cDNA
3812	16649		0.96	7.0E-29	BE254708.1	EST_HUMAN	601114950F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3353367 5'
13085	25611		9.49	7.0E-29	AJ132352.1	NT	Rattus norvegicus mRNA for 45 kDa secretory protein, partial
616	13681	26584	7.99	6.0E-29	AI836748.1	EST_HUMAN	wp69b01.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2468985 3' similar to TR:O15475
12648	25284		8.83	6.0E-29	BE940436.1	EST_HUMAN	O15475 UNNAMED HERV-H PROTEIN; contains LTR7 b1 LTR7 repetitive element;
5119	18116		1.25	5.0E-29	AL163203.2	EST_HUMAN	RC3-UT0062:210800-021-c05 UT0062 Homo sapiens cDNA
9290	22218		8.41	5.0E-29	AW887541.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C003
3279	16327		3.19	4.0E-29	AI762367.1	EST_HUMAN	RC3-OT0091:170300-011-c12 OT0091 Homo sapiens cDNA
6242	19296		7.81	4.0E-29	BE164930.1	EST_HUMAN	cn15c02.x1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn15c02 random
8659	21560	34927	0.65	4.0E-29	AI678101.1	EST_HUMAN	QV1-HT0471:280300-121-a05 HT0471 Homo sapiens cDNA
8659	21560	34928	0.65	4.0E-29	AI678101.1	EST_HUMAN	wd35g08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2330170 3' similar to contains
9304	22232	35592	3.98	4.0E-29	JO4988.1	NT	MER29.l2 MER29 repetitive element;
2394	13369	28403	2.03	3.0E-29	U67847.1	NT	wd35g06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2330170 3' similar to contains
4522	17531	30394	1.85	3.0E-29	AB042297.1	NT	Human 80 kD heat shock protein gene, complete cds
4845	17846	30714	1.07	3.0E-29	BF333338.1	EST_HUMAN	Human beta-galactoside alpha2,6-sialyltransferase (SIAT1) mRNA, exon U
6155	19219	32353	0.88	3.0E-29	BE314018.1	EST_HUMAN	Homo sapiens PDS gene for 6-pyruvoyltetrahydropterin synthase, complete cds
9292	22220	35577	2.21	3.0E-29	D38044.1	NT	QV1-BT0821:120900-360-b03 BT0821 Homo sapiens cDNA
8840	22745	36127	1.38	3.0E-29	AW303317.1	EST_HUMAN	601152857F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3508527 5'
10061	22977		1.82	3.0E-29	AL163246.2	NT	Human gene for Ah-receptor, exon 7-9
10465	23353		0.62	3.0E-29	BE350127.1	EST_HUMAN	xx1703.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2813405 3' similar to contains Alu
11338	24267	37696	3.97	3.0E-29	P23266	SWISSPROT	repetitive element; contains MER19.l2 MER19 repetitive element;
13027	25907		1.75	3.0E-29	D63882.1	NT	Homo sapiens chromosome 21 segment HS21C046
515	13585	26497	1.13	2.0E-29	AF084869.1	NT	h09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3148256 3' similar to contains MER29.b3
515	13585	26498	1.13	2.0E-29	AF084869.1	NT	MER29 repetitive element;
							OLFATORY RECEPTOR-LIKE PROTEIN F5
							Human HsLM15 mRNA for HsLM15, complete cds
							Homo sapiens envelope protein RIC-6 (env) gene, complete cds
							Homo sapiens envelope protein RIC-6 (env) gene, complete cds



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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1556	14587	27545	6.77	2.0E-29	AI063604.1	EST_HUMAN	wr65d10.x1 NCI_CGAP_UT1 Homo sapiens cDNA clone IMAGE:2492663 3' similar to TR:O15548 O15548 HERV-E ENVELOPE GLYCOPROTEIN ;
1556	14587	27546	6.77	2.0E-29	AI063604.1	EST_HUMAN	wr65d10.x1 NCI_CGAP_UT1 Homo sapiens cDNA clone IMAGE:2492663 3' similar to TR:O15548 O15548 HERV-E ENVELOPE GLYCOPROTEIN ;
4378	17392	30256	2.7	2.0E-29	AL163268.2	NT	Homo sapiens chromosome 21 segment HS21C068 os71e04.x1 NCI_CGAP_GC2 Homo sapiens cDNA clone IMAGE:1610814 3' similar to contains L1.12 L1 repetitive element ;
6037	19099	32227	0.89	2.0E-29	AI082459.1	EST_HUMAN	wf27g07.x1 Scores_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2356860 3' similar to contains element MER6 repetitive element ;
6421	19468	32641	1.58	2.0E-29	AI080418.1	EST_HUMAN	wf27g07.x1 Scores_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2356860 3' similar to contains element MER6 repetitive element ;
7991	19468	32641	1.32	2.0E-29	AI080418.1	EST_HUMAN	wf27g07.x1 Scores_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2356860 3' similar to contains element MER6 repetitive element ;
8555	21486	34827	1.06	2.0E-29	BE867157.1	EST_HUMAN	601442206F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3846648 5' Homo sapiens DNA-binding protein (LOC58242), mRNA
8141	22069	35430	0.59	2.0E-29	10567821	NT	Homo sapiens DNA-binding protein (LOC58242), mRNA
8141	22069	35431	0.59	2.0E-29	10567821	NT	Homo sapiens DNA-binding protein (LOC58242), mRNA
10039	22939	36327	3.67	2.0E-29	AL163248.2	NT	Homo sapiens chromosome 21 segment HS21C048
10039	22939	36328	3.67	2.0E-29	AL163248.2	NT	Homo sapiens chromosome 21 segment HS21C048
10733	23619	37047	4.45	2.0E-29	AL163248.2	NT	Homo sapiens chromosome 21 segment HS21C048
10733	23619	37048	4.45	2.0E-29	AL163248.2	NT	Homo sapiens chromosome 21 segment HS21C048
8388	21292	34624	0.46	1.0E-29	AV700745.1	EST_HUMAN	AV700745 GKC Homo sapiens cDNA clone GK:CALE08 3'
8350	22276	35640	10.42	1.0E-29	AW983880.1	EST_HUMAN	RC1-HN0003-220300-021-b04 HN0003 Homo sapiens cDNA nc20c07.s1 NCI_CGAP_GC81 Homo sapiens cDNA clone IMAGE:1286332 3' similar to contains MER4.b1 MER4 repetitive element ;
8864	19866	33111	3.5	9.0E-30	AA761215.1	EST_HUMAN	Homo sapiens zinc finger regulated transporter-like (ZIRT), mRNA
12348	25139		1.68	9.0E-30	11422745	NT	HSC23F051 normalized infant brain cDNA Homo sapiens cDNA clone c-23f05
6574	19615		10.01	8.0E-30	F08988.1	EST_HUMAN	EST07317 Thymus 1 Homo sapiens cDNA 5' end similar to EST containing O family repeat PT2.1_13_B11.r tumor2 Homo sapiens cDNA 3'
8846	21776	35123	1.37	8.0E-30	AA383873.1	EST_HUMAN	PM4-BT0724-150400-004-d11 BT0724 Homo sapiens cDNA Human mRNA for integrin alpha subunit, complete cds
9241	22169	35521	3.59	8.0E-30	AI557072.1	EST_HUMAN	QV0-BN0147-290400-214-f12 BN0147 Homo sapiens cDNA QV0-BN0147-290400-214-f12 BN0147 Homo sapiens cDNA
1536	14566	27792	1.66	6.0E-30	D25303.1	NT	tg92g03.x1 NCI_CGAP_OLL1 Homo sapiens cDNA clone IMAGE:2116276 3' similar to contains Alu repetitive element ;
3233	16281	29181	2.66	6.0E-30	BE008026.1	EST_HUMAN	Human aconitase hydratase (ACO2) gene, exon 7
4871	16281	29181	0.97	6.0E-30	BE008026.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C078
4099	17124	30001	49.68	5.0E-30	AI395992.1	EST_HUMAN	
6419	28744		4.71	5.0E-30	U87931.1	NT	
11324	24243		1.71	5.0E-30	AL163278.2	NT	

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Probe SEQ ID NO:	Exon ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11595	24504	37971	2.33	5.0E-30	AL163210.2	NT	Homo sapiens chromosome 21 segment HS21C010
11596	24504	37972	2.33	5.0E-30	AL163210.2	NT	Homo sapiens chromosome 21 segment HS21C010
2158	15170	28172	2.19	4.0E-30	AW937471.1	EST_HUMAN	QV3-DT0043-080200-080-c06 DT0043 Homo sapiens cDNA
2158	15170	28173	2.19	4.0E-30	AW937471.1	EST_HUMAN	QV3-DT0043-090200-080-c06 DT0043 Homo sapiens cDNA
7176	18448	31317	0.49	4.0E-30	P11369	SWISSPROT	RETROVIRUS-RELATED POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE]
9462	22390	35752	1.66	4.0E-30	AW812488.1	EST_HUMAN	CM1-ST0181-091199-035-008 ST0181 Homo sapiens cDNA
1179	14219		1.67	3.0E-30	AI338561.1	EST_HUMAN	qq93c05.x1 Soares_tetel_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1838920 3' similar to contains MER29.b2 MER29 repetitive element ;
3821	16851	29735	0.8	3.0E-30	AF128893.1	NT	Homo sapiens telomerase reverse transcriptase (TERT) gene, exon 1-8
7629	20564	33858	0.49	3.0E-30	T18862.1	EST_HUMAN	b120561 Testis 1 Homo sapiens cDNA clone b12056
8530	21461		0.68	3.0E-30	AF078779.1	NT	Rattus norvegicus putative four repeat ion channel mRNA, complete cds
10915	23800	37229	0.98	3.0E-30	BE350127.1	EST_HUMAN	h09g01.x1 NCL_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146266 3' similar to contains MER29.b3 MER29 repetitive element ;
11655	24561	38032	1.63	3.0E-30	P34056	SWISSPROT	TRANSCRIPTION FACTOR AP-2
688	13757	26674	1.06	2.0E-30	AW857315.1	EST_HUMAN	OMD-CT0307-310100-158-h03 CT0307 Homo sapiens cDNA
1111	14153		2.49	2.0E-30	F08688.1	EST_HUMAN	HSC23F051 normalized infant brain cDNA Homo sapiens cDNA clone c-23105
1499	14529	27492	4.84	2.0E-30	BE176877.1	EST_HUMAN	RC5-HT0582-110400-013-H08 HT0582 Homo sapiens cDNA
2784	15756	29751	9.26	2.0E-30	BE765232.1	EST_HUMAN	IL2-NT0101-280700-118-E04 NT0101 Homo sapiens cDNA
2992	16014	28912	6.53	2.0E-30	AF114156.1	NT	Homo sapiens Y-linked zhc finger protein (ZFY) gene, complete cds
3854	16883	29768	2.7	2.0E-30	AW206581.1	EST_HUMAN	UI-H-B11-a10-c-12-0-JL.s1 NCL_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2722558 3'
4890	17889	30754	2.53	2.0E-30	BE298945.1	EST_HUMAN	601119860F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3029438 5'
4890	17889	30755	2.53	2.0E-30	BE298945.1	EST_HUMAN	601119860F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3029438 5'
7063	20087	33321	0.9	2.0E-30	BF306337.1	EST_HUMAN	601883208F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4138983 5'
9048	21975	35333	0.56	2.0E-30	AA019103.1	EST_HUMAN	zs58c10.r1 Soares retina N2b4R Homo sapiens cDNA clone IMAGE:363188 6'
9101	22030	35385	5.93	2.0E-30	C18939.1	EST_HUMAN	C18939 Human placenta cDNA [TFujivara] Homo sapiens cDNA clone GEN-570C01 5'
9194	22122	35477	3.05	2.0E-30	BE670617.1	EST_HUMAN	7e37c12.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284662 3' similar to SW.DHSA_HUMAN P31040 SUCCINATE DEHYDROGENASE [UBIQUINONE] FLAVOPROTEIN SUBUNIT PRECURSOR ;
9194	22122	35478	3.05	2.0E-30	BE670617.1	EST_HUMAN	7e37c12.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284662 3' similar to SW.DHSA_HUMAN P31040 SUCCINATE DEHYDROGENASE [UBIQUINONE] FLAVOPROTEIN SUBUNIT PRECURSOR ;
10502	23390	36801	4.23	2.0E-30	AW971588.1	EST_HUMAN	EST383657 IMAGE resequences, MAGL Homo sapiens cDNA

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
10584	23470	36896	9.11	2.0E-30	AW470791.1	EST_HUMAN	ha33406.x1 NCI_CGAP_Kid12 Homo sapiens: cDNA clone IMAGE:2876499 3' similar to contains THR.b3 THR repetitive element
306	13369	26317	9.03	1.0E-30	C18939.1	EST_HUMAN	C18939 Human placenta cDNA (TFujivara) Homo sapiens cDNA clone GEN-570C01 5'
561	13630	26539	3.28	1.0E-30	AW468897.1	EST_HUMAN	hd30604.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2910991 3' similar to contains MER1.13 MER1 MER1 repetitive element
739	13797	26721	1.74	1.0E-30	AL163203.2	NT	Homo sapiens chromosome 21 segment HS2: C003
2227	15237	28244	9.85	1.0E-30	AA684377.1	EST_HUMAN	ac77b08.s1 Stragatene lung (#837210) Homo sapiens cDNA clone IMAGE:868699 3'
2489	15488	28489	2.37	1.0E-30	BF347728.1	EST_HUMAN	602022660.F1 NCI_CGAP_Bn67 Homo sapiens cDNA clone IMAGE:4157981 5'
3102	16163	28049	1.38	1.0E-30	AA315045.1	EST_HUMAN	EST188868 HCC cell line (metastasis to liver in mouse) II Homo sapiens cDNA 5' end
8189	21093	34424	22.54	1.0E-30	BF183230.1	EST_HUMAN	601809932.F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040694 5'
12807	25826		6.4	1.0E-30	H55593.1	EST_HUMAN	CHR220532 Chromosome 22 exon Homo sapiens cDNA clone C22_728 5'
3830	16860	29742	0.73	9.0E-31	T73025.1	EST_HUMAN	yc65a08.r1 Stralagene liver (#837224) Homo sapiens cDNA clone IMAGE:85570 5'
3830	16860	29743	0.73	9.0E-31	T73025.1	EST_HUMAN	yc65a08.r1 Stralagene liver (#837224) Homo sapiens cDNA clone IMAGE:85570 5'
8899	21829	35181	0.91	9.0E-31	R18214.1	EST_HUMAN	y69b08.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:30566 5' similar to gb:X12953 RAS-RELATED PROTEIN RAB-2 (HUMAN);
8899	21829	35182	0.91	9.0E-31	R18214.1	EST_HUMAN	y69b08.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:30566 5' similar to gb:X12953 RAS-RELATED PROTEIN RAB-2 (HUMAN);
9184	22112		1.57	9.0E-31	Z38283.1	EST_HUMAN	HSC05F032 normalized infant brain cDNA Homo sapiens cDNA clone c-05f03 3'
9186	22114	36472	0.63	9.0E-31	AF078778.1	NT	Rattus norvegicus putative four repeat ion channel mRNA, complete cds
13091	25608	31733	1.57	9.0E-31		NT	Mus musculus syndecan 4 (Sdc4), mRNA
1104	14147	27086	2.21	8.0E-31	8923389	NT	Homo sapiens hypothetical protein FLJ20420 (FLJ20420), mRNA
2438	15442		11.81	8.0E-31	AL163208.2	NT	Homo sapiens chromosome 21 segment HS21C008
5027	18024	30882	1	8.0E-31	P23275	SWISSPROT	OLFACTORY RECEPTOR 15 (OR3)
5027	18024	30883	1	8.0E-31	P23275	SWISSPROT	OLFACTORY RECEPTOR 15 (OR3)
734	13782		1.21	7.0E-31	AA372637.1	EST_HUMAN	EST84555 Colon adenocarcinoma IV Homo sapiens cDNA 5' end
2717	15710	28707	1.62	7.0E-31	BE326517.1	EST_HUMAN	hw05a11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3182012 3'
2717	15710	28708	1.62	7.0E-31	BE326517.1	EST_HUMAN	hw05a11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3182012 3'
8971	21901	35255	0.67	7.0E-31	AF208541.1	NT	Homo sapiens V1-vascular vasopressin receptor AVPR1A gene, promoter region and partial cds
8971	21901	35256	0.67	7.0E-31	AF208541.1	NT	Homo sapiens V1-vascular vasopressin receptor AVPR1A gene, promoter region and partial cds
9809	22712		1.18	7.0E-31	BE498011.1	EST_HUMAN	601304126.F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638310 5'
12765	23395	31808	2.38	7.0E-31	X51755.1	NT	Human lembda-immunoglobulin constant region complex (germline)
						NT	Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced
3748	16778		3.23	6.0E-31	AF223391.1	NT	
8732	21662		3.32	6.0E-31	AF050586.1	NT	Homo sapiens MHC class 1 region

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8906	21836	35192	0.79	6.0E-31	BE350127.1	EST_HUMAN	h09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER29.B3 MER29 repetitive element;
11179	24105	37552	1.74	6.0E-31	AU119105.1	EST_HUMAN	AU119105 HEMBA1 Homo sapiens cDNA clone HEMBA1005050 5'
12397	25170	31874	3.28	6.0E-31	AW372868.1	EST_HUMAN	RC5-BT0377-091299-031-D12 BT0377 Homo sapiens cDNA
12512	23761		1.97	6.0E-31	BE894488.1	EST_HUMAN	601433087F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918524 5'
205	13304	26220	1.58	5.0E-31	M60694.1	NT	Homo sapiens type I DNA topoisomerase gene, exon 8
205	13304	26221	1.58	5.0E-31	M60694.1	NT	Homo sapiens type I DNA topoisomerase gene, exon 8
9013	21942		0.57	5.0E-31	BF056540.1	EST_HUMAN	7k06104.x1 NCI_CGAP_G8 Homo sapiens cDNA clone IMAGE:3443479 3' similar to TR:Q13637 Q13637 SIMILAR TO POGO ELEMENT; contains L1.1 L1 repetitive element;
617	13682		4.99	4.0E-31	AJ217135.1	NT	Homo sapiens Xq pseudautosomal region; segment 1/2
1634	14664	27626	1.18	4.0E-31	Q10473	SWISSPROT	POLYPEPTIDE N-ACETYL GALACTOSAMINYLTRANSFERASE (PROTEIN-UDP ACETYL GALACTOSAMINYLTRANSFERASE) (UDP-GALNAC:POLYPEPTIDE, N- ACETYL GALACTOSAMINYLTRANSFERASE) (GALNAC-T1)
1840	14863		2.87	4.0E-31	AL163260.2	NT	Homo sapiens chromosome 21 segment HS21C080
2837	15826		2.03	4.0E-31	5730038	NT	Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA
12551	25267		1.55	4.0E-31	AJ230125.1	NT	Homo sapiens GGT1 gene, exon 1
12898	25486		1.49	4.0E-31	AB008681.1	NT	Homo sapiens gene for activin receptor type IIB; complete cds
2637	16634	28631	2.6	3.0E-31	6005971	NT	Homo sapiens SEC63, endoplasmic reticulum translocon component (S. cerevisiae) like (SEC63L), mRNA
7725	20657	33954	12.5	3.0E-31	4826833	NT	Homo sapiens NADH dehydrogenase (ubiquinone) 1 beta subcomplex 8 (19kD, ASH1) (NDUFB8) mRNA
7916	20839	34142	1.42	3.0E-31	11420329	NT	Homo sapiens hypothetical protein FLJ110842 (FLJ10842), mRNA
8271	21176	34511	0.47	3.0E-31	AW893062.1	EST_HUMAN	CM3-NN0008-300300-132-e07 NN0008 Homo sapiens cDNA
8271	21176	34512	0.47	3.0E-31	AW893062.1	EST_HUMAN	CM3-NN0008-300300-132-e07 NN0008 Homo sapiens cDNA
8739	21669		1.97	3.0E-31	AL163206.2	NT	Homo sapiens chromosome 21 segment HS21C006
10109	23000	36396	9.8	3.0E-31	D14523.1	NT	Horse mRNA for ferritin L-chain, complete cds
11077	24009	37451	3.28	3.0E-31	P11174	SWISSPROT	40S RIBOSOMAL PROTEIN S15 (RIG PROTEIN)
11693	24502		3.89	3.0E-31	BF035327.1	EST_HUMAN	601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3882086 5'
1933	14954	27931	1.39	2.0E-31	AW638171.1	EST_HUMAN	QV2-LT0051-260300-111-f03 LT0051 Homo sapiens cDNA
2229	15239	28246	2	2.0E-31	AI933368.1	EST_HUMAN	tg44905.x1 Scara_NFL_T_GBC_G1 Homo sapiens cDNA clone IMAGE:2111672 3'
2363	15369	28373	2.94	2.0E-31	AL119245.1	EST_HUMAN	DKF2p761G1513_11761 (synonym: hamy2) Homo sapiens cDNA clone DKF2p761G1513 5'
2484	16467	28466	5.87	2.0E-31	AA458824.1	EST_HUMAN	aa38111.s1 Stralagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:838413 3' similar to contains THR12 THR repetitive element;
5457	18538	31380	0.78	2.0E-31	AW444496.1	EST_HUMAN	UIH-B13-abb-f-09-Q-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2733833 3'

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5911	16980	32098	3.09	2.0E-31	BE350127.1	EST_HUMAN	h09g01.x1 NCL_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146288 3' similar to contains MER29.b3 MER29 repetitive element;
9824	22550		1.89	2.0E-31	AA877764.1	EST_HUMAN	m0604.s1 NCL_CGAP_Co10 Homo sapiens cDNA clone IMAGE:1161055 3' similar to TR:Q13537 Q13537 MER37 TRANSPARENT ELEMENT, COMPLETE CONSENSUS SEQUENCE.;
9748	22672	36056	3.52	2.0E-31	7681635	NT	Homo sapiens B9 protein (B9), mRNA
10417	23306	36725	0.99	2.0E-31	AV710948.1	EST_HUMAN	AV710948 Cu Homo sapiens cDNA clone CUAALB07.5'
10417	23305	36726	0.99	2.0E-31	AV710948.1	EST_HUMAN	AV710948 Cu Homo sapiens cDNA clone CUAALB07.5'
10577	23483	36888	3.42	2.0E-31	BE408611.1	EST_HUMAN	601304125F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638310 5'
10577	23483	36887	3.42	2.0E-31	BE408611.1	EST_HUMAN	601304125F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638310 5'
12486	25229		3.14	2.0E-31	AF148512.1	NT	Homo sapiens hexokinase II gene, promoter region
12819	25987		4.55	2.0E-31	AI114527.1	EST_HUMAN	HA1110 Human fetal liver cDNA library Homo sapiens cDNA
17	13132	26019	6.9	1.0E-31	U93163.1	NT	Homo sapiens IMAGE-B2 (IMAGE-B2), IMAGE-B3 (IMAGE-B3), IMAGE-B4 (IMAGE-B4), and IMAGE-B1 (IMAGE-B1) genes, complete cds
1690	14720	27681	1.32	1.0E-31	O95371	SWISSPROT	OLFACTORY RECEPTOR 2C1
1690	14720	27682	1.32	1.0E-31	O95371	SWISSPROT	OLFACTORY RECEPTOR 2C1
1690	14720	27683	1.32	1.0E-31	O95371	SWISSPROT	OLFACTORY RECEPTOR 2C1
4748	17753	30611	1.98	1.0E-31	AL134376.1	EST_HUMAN	DKFZp547B235_r1 547 (synonym: hfr1) Homo sapiens cDNA clone DKFZp547B235 5'
4748	17753	30612	1.98	1.0E-31	AL134376.1	EST_HUMAN	DKFZp547B235_r1 547 (synonym: hfr1) Homo sapiens cDNA clone DKFZp547B235 5'
5475	18556	31398	3.52	1.0E-31	AW391679.1	EST_HUMAN	MR3-ST0220-151289-028-a08_1 ST0220 Homo sapiens cDNA
6373	19422	32587	2.19	1.0E-31	AF048727.1	NT	Homo sapiens minisatellite ceb1 repeat region
7669	20602	33900	0.84	1.0E-31	AF126145.1	NT	Bos taurus xenobiotic/medium-chain fatty acid:CoA ligase form XL-III mRNA, nuclear mRNA encoding mitochondrial protein, complete cds
8355	21260	34594	0.81	1.0E-31	BE972818.1	EST_HUMAN	601632052F1 NIH_MGC_82 Homo sapiens cDNA clone IMAGE:3935293 5'
11354	24272	37714	3.49	1.0E-31	A086434.1	EST_HUMAN	q12h03.x1 NCL_CGAP_Bm28 Homo sapiens cDNA clone IMAGE:1750709 3' similar to TR:Q16595 Q16595 FRATAXIN;
2807	15960		0.96	9.0E-32	U50871.1	NT	Human familial Alzheimer's disease (STM2) gene, complete cds
6930	19959	33180	2.38	9.0E-32	AV723976.1	EST_HUMAN	AV723976 HTB Homo sapiens cDNA clone HTEAAG01 5'
7765	20695	33994	0.5	9.0E-32	L31770.1	NT	Bos taurus vacuolar H <sup>+</sup> -ATPase subunit mRNA, complete cds
8032	20949		1.02	9.0E-32	11430822	NT	Homo sapiens hypothetical protein FLJ11294 (FLJ11294), mRNA
2091	15105	28106	9.97	8.0E-32	A050670.1	EST_HUMAN	oz15e09.x1 Soares fetal liver spleen 1NFLS_S1 Homo sapiens cDNA clone IMAGE:1675384 3'
5870	18744	31654	0.71	8.0E-32	AW997214.1	EST_HUMAN	RC2-BN048-200300-015-e04 BN0048 Homo sapiens cDNA NUCLEAR ENVELOPE PORE MEMBRANE PROTEIN POM 121 (PORE MEMBRANE PROTEIN OF 121 KD)(P146)
4970	17693	30827	3.02	7.0E-32	P62591	SWISSPROT	KD)(P146)

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
12467	25213		3.51	7.0E-32	X17283.1	NT	Human chromosome 22 immunoglobulin V(K) gene, part with 5' breakpoint between orphan and neighbouring non-amplified region
2781	15772	28767	0.94	6.0E-32	AI478104.1	EST_HUMAN	trn34a10.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2159994 3' similar to contains MER29.13
7758	20688		1.16	6.0E-32	BE888016.1	EST_HUMAN	MER29 repetitive element;
12853	26960		2.14	6.0E-32	AA804653.1	EST_HUMAN	601511530F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913087 5'
1060	14104	27042	25.76	5.0E-32	AF116627.1	NT	ch37c03.s1 NCL_CGAP_Kid6 Homo sapiens cDNA clone IMAGE:1459972 3' similar to contains L1.13 L1
959	14009		2.03	4.0E-32	AL183246.2	NT	Homo sapiens PRO1181 mRNA, complete cds
8047	20960	34274	3.28	4.0E-32	11432574	NT	Homo sapiens chromosome 21 segment HS21C046
8047	20960	34275	3.28	4.0E-32	11432574	NT	Homo sapiens AT-binding transcription factor 1 (ATBF1), mRNA
478	13510	26469	2.65	3.0E-32	V17293.1	NT	Homo sapiens AT-binding transcription factor 1 (ATBF1), mRNA
1473	14504	27466	11.44	3.0E-32	AV731600.1	EST_HUMAN	Homo sapiens FLI-1 gene, partial
9930	22835	36224	9.8	3.0E-32	AV758634.1	EST_HUMAN	AV731500 HTF Homo sapiens cDNA clone HTFAK007 5'
9930	22835	36225	9.8	3.0E-32	AV758634.1	EST_HUMAN	AV758634 BM Homo sapiens cDNA clone BMFBH12 5'
11363	24281	37724	3.36	3.0E-32	AA777621.1	EST_HUMAN	AV758634 BM Homo sapiens cDNA clone BMFBH12 5'
12489	26231		5.74	3.0E-32	BE270086.1	EST_HUMAN	z96a07.s1 Soares_fetal_liver_spleen_INFLS_S1 Homo sapiens cDNA clone IMAGE:448500 3' similar to contains THR.13 THR repetitive element;
12831	18423	31346	4.39	3.0E-32	5174574	NT	601156285F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3139701 5'
12831	18423	31347	4.39	3.0E-32	5174574	NT	Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA
12978	25538		4.9	3.0E-32	BE276086.1	EST_HUMAN	Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA
4991	17990	30847	0.97	2.0E-32	BE296613.1	EST_HUMAN	601156285F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3139701 5'
6501	19545	32721	0.76	2.0E-32	MS5418.1	NT	601173631F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3529159 5'
6753	19787	32999	5.02	2.0E-32	Z38133.1	NT	Human cell 12-lipoxygenase mRNA, complete cds
6753	19787	33000	5.02	2.0E-32	Z38133.1	NT	H. sapiens mRNA for myosin
8854	21784	35132	4.45	2.0E-32	AA114294.1	EST_HUMAN	H. sapiens mRNA for myosin
8854	21784	35133	4.45	2.0E-32	AA114294.1	EST_HUMAN	z96c08.r1 Stralagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:563150 5'
7408	20107	33342	6.17	1.0E-32	11430789	NT	z96c08.r1 Stralagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:563150 5'
9158	22086	35445	0.56	1.0E-32	AA720574.1	EST_HUMAN	Homo sapiens chromosome 11 open reading frame 9 (C11ORF9), mRNA
3540	16578		5.3	9.0E-33	BE327112.1	EST_HUMAN	nw21g02.e1 NCL_CGAP_GC90 Homo sapiens cDNA clone IMAGE:1241138 3' similar to contains THR.13 THR repetitive element;
							hw07c05.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3182216 3' similar to TR:O88539 O88539
							WW DOMAIN BINDING PROTEIN 11.;

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Table 4  
Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6687	19723		3.62	9.0E-33	AF223391.1	NT	Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced
9346	22274	35636	1.76	9.0E-33	BF347229.1	EST_HUMAN	602021164F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4156670 5'
11238	24164		4.48	9.0E-33	AL163280.2	NT	Homo sapiens chromosome 21 segment HS21C080
64	13180	26085	2.59	7.0E-33	5031736	NT	Homo sapiens short-chain alcohol dehydrogenase family member (HEP27) mRNA
64	13180	26086	2.59	7.0E-33	5031736	NT	Homo sapiens short-chain alcohol dehydrogenase family member (HEP27) mRNA
2174	15186	28181	2.13	7.0E-33	AI690115.1	EST_HUMAN	1012b09.x1 NCI_CGAP_U12 Homo sapiens cDNA clone IMAGE:2178809 3' similar to contains OFR.11 OFR repetitive element;
2697	15691		9.74	7.0E-33	AV730056	EST_HUMAN	HTF Homo sapiens cDNA clone HTFAVE06 5'
3288	16335		17.86	7.0E-33	AW971307.1	EST_HUMAN	EST3833657 IMAGE resequences, MAGI, Homo sapiens cDNA
9501	22426		0.93	7.0E-33	X54890.1	NT	Human hLRP mRNA for leukocyte common antigen-related peptide (protein-tyrosine phosphate) (EC 3.1.3.48)
11289	24190	37639	2.16	7.0E-33	BF347229.1	EST_HUMAN	602021164F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4156670 5'
11694	24596	36073	2.08	7.0E-33	AW971568.1	EST_HUMAN	EST3833657 IMAGE resequences, MAGI, Homo sapiens cDNA
12472	25218	31854	10.74	7.0E-33	AA601416.1	EST_HUMAN	1016h01.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100881 3' similar to contains L.11 L1 repetitive element;
3789	18830		0.92	6.0E-33	AL163285.2	NT	Homo sapiens chromosome 21 segment HS21C085
6302	19353	32522	1.06	6.0E-33	F30631.1	EST_HUMAN	HSPD21201 HM3 Homo sapiens cDNA clone s4000107H06
6302	19353	32523	1.06	6.0E-33	F30631.1	EST_HUMAN	HSPD21201 HM3 Homo sapiens cDNA clone s4000107H06
9142	22070	35432	5.23	6.0E-33	J04038.1	NT	Human glyceraldehyde-3-phosphate dehydrogenase (GAPDH) gene, complete cds
9260	22186	35545	2.64	6.0E-33	11429198	NT	Homo sapiens similar to RAD23 (S. cerevisiae) homolog B (H. sapiens) (LOC83277), mRNA
10515	23402	36813	1.57	6.0E-33	6755609	NT	Mus musculus SRY-box containing gene 6 (Sox6), mRNA
10515	23402	36814	1.57	6.0E-33	6755609	NT	Mus musculus SRY-box containing gene 6 (Sox6), mRNA
1802	14826		1.58	5.0E-33	BF373515.1	EST_HUMAN	QV1-F10189-100700-271-a02 F10189 Homo sapiens cDNA
1803	14924		1.12	5.0E-33	11141884	NT	Homo sapiens solute carrier family 5 (glucose transporter), member 7 (SLC5A7), mRNA
1916	14937	27913	1.27	5.0E-33	4507208	NT	Homo sapiens spermidine synthase (SRM) mRNA
1916	14937	27914	1.27	5.0E-33	4507208	NT	Homo sapiens spermidine synthase (SRM) mRNA
2291	15269		3.09	5.0E-33	AL163285.2	NT	Homo sapiens chromosome 21 segment HS21C085
6962	19990	33216	0.67	5.0E-33	AA189080.1	EST_HUMAN	2p45b06.s1 Stragene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:532627 3' similar to contains Alu repetitive element
10742	23626	37056	0.92	5.0E-33	AW264679.1	EST_HUMAN	xq33111.x1 NCI_CGAP_Lu28 Homo sapiens cDNA clone IMAGE:2752461 3'
10742	23628	37059	0.92	5.0E-33	AW264679.1	EST_HUMAN	xq33111.x1 NCI_CGAP_Lu28 Homo sapiens cDNA clone IMAGE:2752461 3'
1155	14196		2.61	4.0E-33	AL163207.2	NT	Homo sapiens chromosome 21 segment HS21C007
2139	15182	28163	1.24	4.0E-33	4758987	NT	Homo sapiens RAB1, member RAS oncogene family (RAB1) mRNA

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2444	15448		2.75	4.0E-33	AA626621.1	EST_HUMAN	ab51b11.1 Striatogene lung carcinoma 937218 Homo sapiens cDNA clone IMAGE:844317 5' similar to contains Alu repetitive element contains MER28.b2 MER28 repetitive element :
2576	15575	28571	7.3	4.0E-33	AL163210.2	NT	Homo sapiens chromosome 21 segment HS21C010
4597	17605	30462	1.78	4.0E-33	AW293349.1	EST_HUMAN	UI-H-B12-ahl-c-03-0-J1.s1 NCI CGAP Sub4 Homo sapiens cDNA clone IMAGE:2727149 3'
5588	18665	31541	20.44	4.0E-33	AA053063.1	EST_HUMAN	z71a08.r1 Striatogene colon (H937204) Homo sapiens cDNA clone IMAGE:510038 5' similar to db:X12671_mna1 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1 (HUMAN);
6656	19695	32890	0.73	4.0E-33	8383994	NT	Homo sapiens polymerase (DNA directed), alpha (POLA), mRNA
6656	19695	32891	0.73	4.0E-33	8393994	NT	Homo sapiens polymerase (DNA directed), alpha (POLA), mRNA
1118	14158		4.65	3.0E-33	BE350127.1	EST_HUMAN	h09g01.x1 NCI CGAP J4d13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER28.b3 MER28 repetitive element ;
1117	14158		2.57	3.0E-33	BE350127.1	EST_HUMAN	h09g01.x1 NCI CGAP J4d13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER28.b3 MER28 repetitive element ;
2474	15924		3.3	3.0E-33	AV647851.1	EST_HUMAN	AV647851 GLC Homo sapiens cDNA clone GLCFC09 3'
10920	23805	37232	0.97	3.0E-33	AA861510.1	EST_HUMAN	ek32612.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1407847 3' similar to TR:Q13579 Q13579 MARINER TRANSPOSASE ;
108	13133		3.44	2.0E-33	AI160189.1	EST_HUMAN	qb67g03.x1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:1705204 3' similar to contains OFR.t1 OFR repetitive element ;
1399	14430	27384	1.52	2.0E-33	AA010242.1	EST_HUMAN	z08e08.r1 Soares_fetal_liver_spleen_INFLS_S1 Homo sapiens cDNA clone IMAGE:430214 5'
1399	14430	27385	1.52	2.0E-33	AA010242.1	EST_HUMAN	z08e08.r1 Soares_fetal_liver_spleen_INFLS_S1 Homo sapiens cDNA clone IMAGE:430214 5'
4528	17535		3.75	2.0E-33	BE159039.1	EST_HUMAN	MRO-HT0405-160300-202-408 HT0405 Homo sapiens cDNA
5107	18104	30951	2.21	2.0E-33	AA626683.1	EST_HUMAN	ab51011.1 Striatogene lung carcinoma 937218 Homo sapiens cDNA clone IMAGE:844388 5' similar to gb:X00734_cds1 TUBULIN BETA-5 CHAIN (HUMAN);
5228	18217	31063	1.77	2.0E-33	11421332	NT	Homo sapiens hypothetical protein SIRP-b2 (SIRP-b2), mRNA
5228	18217	31064	1.77	2.0E-33	11421332	NT	Homo sapiens hypothetical protein SIRP-b2 (SIRP-b2), mRNA
6691	19727	32927	1.07	2.0E-33	AI27492.1	EST_HUMAN	q198d01.x1 Soares_NbHHMPu_S1 Homo sapiens cDNA clone IMAGE:1880161 3'
6645	22571		1.77	2.0E-33	AI052258.1	EST_HUMAN	cz21403.x1 Soares_fetal_liver_spleen_INFLS_S1 Homo sapiens cDNA clone IMAGE:1875973 3' similar to gb:M29636 TRANSLATIONAL INITIATION FACTOR 2 BETA SUBUNIT (HUMAN);
9	13124		1.05	1.0E-33	AF003528.1	NT	Homo sapiens X-linked arthralgia ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions
5782	19854	31960	0.59	1.0E-33	AF199420.1	NT	Homo sapiens F-box protein FBL4 (FBL4) mRNA, complete cds
7608	20735	34038	1.09	1.0E-33	MI13975.1	NT	Homo sapiens protein kinase C beta-II type (PRKCB1) mRNA, complete cds
10524	25993		1.04	1.0E-33	U60822.1	NT	Human dystrophin (DMD) gene, exons 7, 8 and 9, and partial cds
11765	24686	38152	1.81	1.0E-33	AW998618.1	EST_HUMAN	QY3-BN0047-230200-102-b03 BN0047 Homo sapiens cDNA
12089	24930	38435	2.78	1.0E-33	U60822.1	NT	Human dystrophin (DMD) gene, exons 7, 8 and 9, and partial cds



Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
12739	25379		1.45	1.0E-33	AB27191.1	EST_HUMAN	wc88c06.x1 NCI_CGAP_K111 Homo sapiens cDNA clone IMAGE:2462410 3'
12899	13124		3.56	1.0E-33	AF003528.1	NT	Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions
12927	25501	31770	2.44	1.0E-33	AV727809.1	EST_HUMAN	AV727809 HTC Homo sapiens cDNA clone HITCCNG12 5'
4724	17729		0.97	9.0E-34	BE155575.1	EST_HUMAN	PM4-HT0352-181199-001-D02 HT0352 Homo sapiens cDNA
13078	25600		14.65	9.0E-34	AJ271735.1	NT	Homo sapiens Xq pseudautosomal region; segment 1/2
2184	15195	28200	0.99	8.0E-34	8922751	NT	Homo sapiens hypothetical protein FLJ10900 (FLJ10900), mRNA
8276	21181	34519	0.56	8.0E-34	BE069882.1	EST_HUMAN	MR4-BT0399-200100-001-103 BT0399 Homo sapiens cDNA
1463	14494	27455	3.69	7.0E-34	T70945.1	EST_HUMAN	yd15e05.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:108320 5'
10505	14494	27455	0.58	7.0E-34	T70945.1	EST_HUMAN	yd15e05.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:108320 5'
12534	25257		2.38	7.0E-34	H12866.1	EST_HUMAN	Y14C10.r1 Soares placenta N2HP Homo sapiens cDNA clone IMAGE:148722 5'
493	13563	26481	1.4	6.0E-34	U10991.1	NT	Human G2 protein mRNA, partial cds
493	13563	26482	1.4	6.0E-34	U10991.1	NT	Human G2 protein mRNA, partial cds
5288	18274	31122	0.97	6.0E-34	AW998611.1	EST_HUMAN	PM0-BN0065-100300-001-008 BN0065 Homo sapiens cDNA
12366	25152	31868	1.9	6.0E-34	U03686.1	NT	Mus musculus DAB/2J hair-specific (hac1-1) gene
1902	14923		1.91	6.0E-34	7706500	NT	Homo sapiens Npw38-binding protein NpwBP (LOC51729), mRNA
5198	18168	31029	5.67	5.0E-34	U30983.1	NT	Human splicing factor SRP55-1 (SRP55) mRNA, complete cds
9424	22362	35718	1.68	5.0E-34	AF078779.1	NT	Rattus norvegicus putative four repeat ion channel mRNA, complete cds
11098	24029	37473	2.34	5.0E-34	AB037856.1	NT	Homo sapiens mRNA for KIAA1435 protein, partial cds
11701	24603		1.72	5.0E-34	AL163209.2	NT	Homo sapiens chromosome 21 segment HS21C009
2014	16032	28026	2.07	4.0E-34	AB04667.1	EST_HUMAN	H94c06.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:2249194 3'
3215	16263	29102	0.99	4.0E-34	5803166	NT	Homo sapiens splicing factor 3a, subunit 3, 60kD (SF3A3), mRNA
6075	19136	32270	0.46	4.0E-34	A4861773.1	EST_HUMAN	el435c01.s1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1407836 3'
9590	22516	35878	1.26	4.0E-34	BF209778.1	EST_HUMAN	601B74950F1 NIH_MGC_34 Homo sapiens cDNA clone IMAGE:4102213 5'
6479	19524	32702	0.8	3.0E-34	M37277.1	NT	Human Ig germline H-chain D-region genes, partial cds
11592	24501		3.29	3.0E-34	BF035327.1	EST_HUMAN	601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5'
9506	22433	35796	0.86	2.0E-34	AI678101.1	EST_HUMAN	wd35g06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2330170 3' similar to contains MER29.12 MER29 repetitive element ;
9506	22433	35797	0.86	2.0E-34	AI678101.1	EST_HUMAN	wd35g06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2330170 3' similar to contains MER29.12 MER29 repetitive element ;
11801	24510	37976	1.51	2.0E-34	P51805	SWISSPROT	PLEXIN 4 PRECURSOR (TRANSMEMBRANE PROTEIN SEX)
11601	24510	37977	1.51	2.0E-34	P51805	SWISSPROT	PLEXIN 4 PRECURSOR (TRANSMEMBRANE PROTEIN SEX)
1524	14555	27518	5.3	1.0E-34	P12236	SWISSPROT	ADP-ATP CARRIER PROTEIN, LIVER ISOFORM T2 (ADP/ATP TRANSLOCASE 3) (ADENINE NUCLEOTIDE TRANSLOCATOR 3) (ANT 3)

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Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3741	16773	29659	1.87	1.0E-34	AF003528.1	NT	Homo sapiens X-linked ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions
4158	17179	30051	1	1.0E-34	AY009397.1	NT	Homo sapiens WNT3 precursor (WNT3) mRNA, complete cds
4158	17179	30052	1	1.0E-34	AY009397.1	NT	Homo sapiens WNT3 precursor (WNT3) mRNA, complete cds
4593	17601		7.12	1.0E-34	BE071414.1	EST_HUMAN	RC2-BT0506-240400-016-n08 BT0506 Homo sapiens cDNA
6378	19427	32593	2.35	1.0E-34	BE874052.1	EST_HUMAN	601484430F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3886998 5'
6378	19427	32594	2.35	1.0E-34	BE874052.1	EST_HUMAN	601484430F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3886998 5'
9866	22781	36170	0.59	1.0E-34	P23266	SWISSPROT	OLFACTORY RECEPTOR-LIKE PROTEIN F5
10219	23110	36511	10.5	1.0E-34	AL036835.1	EST_HUMAN	DKFp564A1563.1 564 (synonym: hbr2) Homo sapiens cDNA clone DKFp564A1563 5'
11628	24534	38003	1.58	1.0E-34	BE781790.1	EST_HUMAN	601470592F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3873478 5'
11628	24534	38004	1.56	1.0E-34	BE781790.1	EST_HUMAN	601470592F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3873478 5'
12708	25902		2.49	1.0E-34	AA807097.1	EST_HUMAN	cc31c11.s1 NCI_CGAP_G081 Homo sapiens cDNA clone IMAGE:1351316 3' similar to b6:X68203
12918	26528		7.66	1.0E-34	AL163210.2	NT	TYROSINE-PROTEIN KINASE RECEPTOR FL14 PRECURSOR (HUMAN);
3714	16746	29634	2.2	9.0E-35	AW663302.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C010
242	13339		10.64	8.0E-35	6031190	NT	h77b06.v1 NCI_CGAP_G01 Homo sapiens cDNA clone IMAGE:2968787 5'
1766	14792	27762	4.72	8.0E-36	BF586937.1	EST_HUMAN	Homo sapiens prohibitin (PHB) mRNA
1766	14792	27763	4.72	8.0E-36	BF586937.1	EST_HUMAN	naa33a08.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3258134 3' similar to TR:O75912
4976	17973	30834	3.13	8.0E-35	BF183195.1	EST_HUMAN	O75912 DIACYLGLYCEROL KINASE IOTA. ;
11132	24001	37508	2.21	8.0E-35	BE378490.1	EST_HUMAN	naa33a08.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3258134 3' similar to TR:O75912
12468	25212		5.01	8.0E-35	BF586937.1	EST_HUMAN	601809588F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040324 5'
6759	19793	33007	1.63	7.0E-35	11425417	NT	601236488F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608513 5'
1983	15001	27986	1.35	6.0E-35	6005975	NT	602184624T1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300860 3'
4137	17158	30034	0.73	6.0E-35	AW297191.1	EST_HUMAN	Homo sapiens phosphatidylinositol glycan, class L (PIGL), mRNA
5310	18294	31147	0.78	6.0E-35	AW753689.1	EST_HUMAN	Homo sapiens zinc finger protein 208 (ZNF208), mRNA
8477	21408	34746	4.62	6.0E-35	6005921	NT	U1H-BWO-ajd-d-09-o-01.s1 NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2731433 3'
9287	22195	35552	0.58	6.0E-35	X94232.1	NT	PM1-C10267-091299-004-n08 C10267 Homo sapiens cDNA
9287	22195	35553	0.58	6.0E-35	X94232.1	NT	Homo sapiens triple functional domain (TPFR) interacting (TRIO), mRNA
10161	23082	36483	0.79	6.0E-35	AB002384.1	NT	H. sapiens mRNA for novel T-cell activation protein
10414	23303	36720	2.76	6.0E-35	AB03786.1	NT	H. sapiens mRNA for novel T-cell activation protein
13068	25594	31728	7.58	6.0E-35	11417871	NT	H. sapiens mRNA for KIAA1365 gene, partial cds
13068	25594	31727	7.58	6.0E-35	11417871	NT	Homo sapiens beta-ureidopropionase (LOC51733), mRNA

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Table 4  
Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
151	13251	26189	38.71	5.0E-35	AF154830.1	NT	Homo sapiens carbamyl phosphate synthetase I mRNA, complete cds
1738	14765	27735	6.09	5.0E-35	X63392.1	NT	H. sapiens immunoglobulin kappa light chain variable region L14
3052	16105	29009	1.46	6.0E-35	6912639	NT	Homo sapiens Ring1 and YY1 binding protein (RYBP), mRNA
4516	17625	30391	1.53	5.0E-35	AF023268.1	NT	Homo sapiens cdk2 kinase (CLK2), propin1, cdt1, glucocorticoidase (GBA), and melanin genes, complete cds; melanin pseudogene and glucocorticoidase pseudogene; and thrombospondin3 (THBS3) gene, partial cds
8762	21692		5.28	5.0E-35	BE890992.1	EST_HUMAN	601431984F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3917229 5'
8788	21718	35066	2.81	5.0E-35	AI208765.1	EST_HUMAN	qg38c05.x1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1837448 3' similar to SW:Y249_HUMAN Q92539 HYPOTHETICAL PROTEIN KIAA0249. ;
8788	21718	35067	2.81	5.0E-35	AI208765.1	EST_HUMAN	qg38c05.x1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1837448 3' similar to SW:Y249_HUMAN Q92539 HYPOTHETICAL PROTEIN KIAA0249. ;
11620	24527		3.16	5.0E-35	AA001786.1	EST_HUMAN	zh84112.f1 Soares fetal liver spleen_INFLS [S1] Homo sapiens cDNA clone IMAGE:428015 5'
1464	14466	27447	6.73	4.0E-35	BE257807.1	EST_HUMAN	601108719F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350405 5'
1841	14864	27845	11.9	4.0E-35	H91193.1	EST_HUMAN	W98a07.r1 Soares fetal liver spleen_INFLS Homo sapiens cDNA clone IMAGE:241233 5' similar to contains PTR5 repetitive element ;
4920	17919		0.72	4.0E-35	AF003528.1	NT	Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions
5245	18232		1.01	4.0E-35	BE409102.1	EST_HUMAN	601300705F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3835401 5'
7675	20611		1.75	4.0E-35	BE350127.1	EST_HUMAN	H09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146266 3' similar to contains MER29.b3 MER29 repetitive element ;
9083	22012	33369	9.88	4.0E-35	AL046598.1	EST_HUMAN	DKFZp434L148 r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434L148 5'
1601	14632	27592	17.44	3.0E-35	BE268182.1	EST_HUMAN	601125280F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3345063 5'
2353	16361		4.16	3.0E-35	AF224492.1	NT	Homo sapiens phospholipid scramblase 1 gene, complete cds
5524	18603	31451	23.63	3.0E-35	BF433100.1	EST_HUMAN	7n25a09.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3556361 3' similar to TR:Q9QZH7 Q9QZH7 F-BOX PROTEIN FBL2. ;
5524	18603	31452	23.63	3.0E-35	BF433100.1	EST_HUMAN	7n25a09.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3556361 3' similar to TR:Q9QZH7 Q9QZH7 F-BOX PROTEIN FBL2. ;
10021	22921		1.52	3.0E-35	AF223391.1	NT	Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced
10671	23557	39989	0.97	3.0E-35	AW003063.1	EST_HUMAN	wr03a05.x1 NCI_CGAP_G08 Homo sapiens cDNA clone IMAGE:2480432 3' similar to SW:POL1_HUMAN P10269 RETROVIRUS-RELATED POL POLYPOLYMERIN [CONTAINS: REVERSE TRANSCRIPTASE ;
112	15666	26135	0.91	2.0E-35	N88965.1	EST_HUMAN	K6932F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone K6932 5' similar to REPETITIVE ELEMENT

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1218	14254	27195	1.08	2.0E-35	T11909.1	EST_HUMAN	A971F Heart Homo sapiens cDNA clone A971
2232	15242	28250	3.94	2.0E-35	AB018413.1	NT	Homo sapiens mRNA for Gab2, complete cds
2732	15725	28721	1.13	2.0E-35	AW665005.1	EST_HUMAN	h186a12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2979166 3' similar to SW:TR12_HUMAN Q14669 THYROID RECEPTOR INTERACTING PROTEIN 12;
3357	16401	29301	0.79	2.0E-35	6912459	NT	Homo sapiens Gb2-associated binder 2 (KIAA0571), mRNA
3357	16401	29302	0.79	2.0E-35	6912459	NT	Homo sapiens Gb2-associated binder 2 (KIAA0571), mRNA
3818	16854		0.94	2.0E-35	AB020702.1	NT	Homo sapiens mRNA for KIAA0895 protein, partial cds
3984	17012	28900	0.88	2.0E-35	BE247575.1	EST_HUMAN	TCBAP2E4328 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP4328
3984	17012	28901	0.88	2.0E-35	BE247575.1	EST_HUMAN	TCBAP2E4328 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP4328
4781	17786		3.68	2.0E-35	H49239.1	EST_HUMAN	Y19A12.11 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:274079 5'
5412	18393	31230	1.08	2.0E-35	AW291061.1	EST_HUMAN	UI-H-BI2-agg-b-10-0-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2723682 3'
5412	18393	31231	1.08	2.0E-35	AW291061.1	EST_HUMAN	UI-H-BI2-agg-b-10-0-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2723682 3'
5774	18847	31950	1.77	2.0E-35	BF332417.1	EST_HUMAN	QV0-BT0701-210400-199-b04 BT0701 Homo sapiens cDNA
7463	20403	33678	0.73	2.0E-35	BE832636.1	EST_HUMAN	CM2-MT0125-280700-297-G02 MT0125 Homo sapiens cDNA
7463	20403	33679	0.73	2.0E-35	BE832636.1	EST_HUMAN	CM2-MT0125-280700-297-G02 MT0125 Homo sapiens cDNA
11237	24163	37610	2.88	2.0E-35	X59417.1	NT	H.sapiens PROS-27 mRNA
12208	18847	31850	1.51	2.0E-35	BF332417.1	EST_HUMAN	QV0-BT0701-210400-199-b04 BT0701 Homo sapiens cDNA
12901	29489		8.38	2.0E-35	AL103210.2	NT	Homo sapiens chromosome 21 segment HS21C010
49	13166	26060	4.55	1.0E-35	AA631949.1	EST_HUMAN	frnc16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1
49	13166	26061	4.55	1.0E-35	AA631949.1	EST_HUMAN	frnc16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1
776	13833	26765	32.39	1.0E-35	AW369473.1	EST_HUMAN	IL2-ST0162-131099-006-d12 ST0162 Homo sapiens cDNA
776	13833	26766	32.39	1.0E-35	AW369473.1	EST_HUMAN	IL2-ST0162-131099-006-d12 ST0162 Homo sapiens cDNA
934	13986		1.78	1.0E-35	T87947.1	EST_HUMAN	Yd93a01.11 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:115752 5' similar to SP:A44282 A44282 RETROVIRUS-RELATED POLYPROTEIN - HUMAN;
2573	15571	28568	2.29	1.0E-35	7705994	NT	Homo sapiens hypothetical protein (LOC51233), mRNA
2818	15807	28805	2.11	1.0E-35	BE350127.1	EST_HUMAN	h109g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146258 3' similar to contains MER29.b3 MER29 repetitive element;
2818	15807	28806	2.11	1.0E-35	BE350127.1	EST_HUMAN	h109g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146258 3' similar to contains MER29.b3 MER29 repetitive element;
3206	16254	29150	1.73	1.0E-35	AV650422.1	EST_HUMAN	AV650422 GLC Homo sapiens cDNA clone GLCCEF08 3'
3206	16254	29151	1.73	1.0E-35	AV650422.1	EST_HUMAN	AV650422 GLC Homo sapiens cDNA clone GLCCEF08 3'
4529	17538	30399	6.72	1.0E-35	7656905	NT	Mus musculus activin receptor interacting protein 1 (Anp1'-pending), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4629	17638	30400	5.72	1.0E-35	7656905	NT	Mus musculus activin receptor interacting protein 1 (Arip1-pending), mRNA
5700	18773	31702	1.44	1.0E-35	11626236	NT	Homo sapiens chromatin assembly factor 1, subunit B (p50) (CHAF1B), mRNA
7337	18505	31280	0.97	1.0E-35	AW808665.1	EST_HUMAN	NR1-ST0111-111199-011-d07 ST0111 Homo sapiens cDNA
7337	18505	31281	0.97	1.0E-35	AW808665.1	EST_HUMAN	NR1-ST0111-111199-011-d07 ST0111 Homo sapiens cDNA
7903	20828	34131	0.82	1.0E-35	AB033105.1	NT	Homo sapiens mRNA for KIAA1279 protein, partial cds
8090	21002	34325	1.02	1.0E-35	11418002	NT	Homo sapiens KIAA0845 gene product (KIAA0845), mRNA
10071	25692	36380	1.86	1.0E-35	AU158595.1	EST_HUMAN	AU158595 PLACE3 Homo sapiens cDNA clone PLACE3000382 3'
10071	25692	36381	1.86	1.0E-35	AU158595.1	EST_HUMAN	AU158595 PLACE3 Homo sapiens cDNA clone PLACE3000382 3'
11050	23934	37373	0.83	1.0E-35	BF589594.1	EST_HUMAN	naa06d08.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:3254051 3' similar to TR:O31341
11050	23934	37374	0.83	1.0E-35	BF589594.1	EST_HUMAN	naa06d08.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:3254051 3' similar to TR:O31341
12172	25008	38511	1.57	1.0E-35	AB026980.1	NT	O31341 BETA-GALACTOSIDASE
12172	25008	38512	1.57	1.0E-35	AB026980.1	NT	Homo sapiens mRNA for KIAA1057 protein, partial cds
12180	25016		1.69	1.0E-35	AI525119.1	EST_HUMAN	Homo sapiens mRNA for KIAA1057 protein, partial cds
12276	25867		1.95	1.0E-35	11418274	NT	promne-7.D01.r by tumor Homo sapiens cDNA 5'
12800	25426		2.23	1.0E-35	BE792832.1	EST_HUMAN	Homo sapiens fibulin 1 (FBLN1), mRNA
6240	19294	32453	0.87	8.0E-36	X78479.1	NT	G07584833F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3938985 5'
9771	22695	36081	0.9	8.0E-36	AA348480.1	EST_HUMAN	B. bovis BBSc mRNA for schlerlin
2973	16026	28926	2.11	7.0E-36	AW857579.1	EST_HUMAN	EST54938 Hippocampus II Homo sapiens cDNA 5' end similar to similar to endogenous retrovirus 9, 5' LTR
3163	16213		6.32	7.0E-36	4657498	NT	GM1-C10315-091288-063-d07 CT0315 Homo sapiens cDNA
8103	21015	34341	6.04	7.0E-36	U06672.1	NT	Homo sapiens C-terminal binding protein 2 (CTBP2) mRNA
8103	21015	34342	6.04	7.0E-36	U06672.1	NT	Human carcinoembryonic antigen gene family member 12 (CGM12) gene, exons L and LN
12610	25303	31814	1.95	7.0E-36	AF052051.1	NT	Human carcinoembryonic antigen gene family member 12 (CGM12) gene, exons L and LN
2020	15038	28032	1.45	6.0E-36	7706922	NT	Homo sapiens glutathione transferase A4 gene, exon 1
2443	15447		10.07	6.0E-36	AB035346.1	NT	Homo sapiens ninjurin 2 (NINJ2), mRNA
3707	18739	29628	0.84	6.0E-36	BF515101.1	EST_HUMAN	Homo sapiens TCL8 gene, exon 12
5077	18074	30923	0.98	6.0E-36	AB030501.1	NT	UI-H-BW1-amy-c-12-QJ.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3083542 3'
5514	18693	31441	8.6	6.0E-36	AI435169.1	EST_HUMAN	Rattus norvegicus mRNA for DLG6 gamma, complete cds
7468	20409	33685	3.1	6.0E-36	AW780143.1	EST_HUMAN	U06672.1 Homo sapiens cDNA clone IMAGE:2126165 3' similar to gb:M11949 PANCREATIC SECRETORY TRYPSIN INHIBITOR PRECURSOR (HUMAN);
9211	22139	35498	2.81	6.0E-36	AF208161.1	NT	hcd05h02.x1 NCI_CGAP_Co14 Homo sapiens cDNA clone IMAGE:3036627 3' similar to SW:IMA2_HUMAN
							P52292 IMPORTIN ALPHA-2 SUBUNIT;
							Homo sapiens synovial precursor, mRNA, complete cds

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11980	24823	38318	2.78	6.0E-36	AI380499.1	EST_HUMAN	t95c09.x1 NCL_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2107024 3' similar to contains MIER9.b2 NIER9 repetitive element;
142	13244	28162	9.93	5.0E-36	AJ271735.1	NT	Homo sapiens Xq pseudautosomal region; segment 1/2
2800	15789	28788	7.59	5.0E-36	BE388436.1	EST_HUMAN	G01285507F1 NIH_MGC 44 Homo sapiens cDNA clone IMAGE:3607289 5'
3678	18709	28599	2.47	5.0E-36	AL163209.2	NT	Homo sapiens chromosome 21 segment HS21C009
4900	17859	30765	1.16	5.0E-36	5729729	NT	Homo sapiens API5-like 1 (API5L1), mRNA
4900	17859	30766	1.16	5.0E-36	5729729	NT	Homo sapiens API5-like 1 (API5L1), mRNA
8264	21159	34503	0.76	5.0E-36	11078227	NT	Homo sapiens N-ethylmaleimide-sensitive factor (NSF), mRNA
12246	13244	28162	7.07	5.0E-36	AJ271735.1	NT	Homo sapiens Xq pseudautosomal region; segment 1/2
12511	25245	31868	2.53	5.0E-36	11417862	NT	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA
1252	14288	27231	2.41	4.0E-36	BE010038.1	EST_HUMAN	PN3-BN0176-100400-001-g04 BN0176 Homo sapiens cDNA
1672	14702	27663	1.63	4.0E-36	BE382574.1	EST_HUMAN	G01288574F1 NIH_MGC 19 Homo sapiens cDNA clone IMAGE:3628386 5'
2238	15246	19246	1.95	4.0E-36	AW247772.1	EST_HUMAN	2820020.5prime NIH_MGC 7 Homo sapiens cDNA clone IMAGE:2820020 5'
3403	16445	29352	0.67	4.0E-36	BE389289.1	EST_HUMAN	G01282266F1 NIH_MGC 44 Homo sapiens cDNA clone IMAGE:3604168 5'
3403	16445	29353	0.67	4.0E-36	BE389289.1	EST_HUMAN	G01282266F1 NIH_MGC 44 Homo sapiens cDNA clone IMAGE:3604168 5'
4837	17867	30731	0.92	4.0E-36	AL163204.2	NT	Homo sapiens chromosome 21 segment HS21C004
5281	18267	31115	0.84	4.0E-36	AA065381.1	EST_HUMAN	ck05b11.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1506909 3' similar to SW:D3HL_RAT_P29268 3-HYDROXYISOBUTYRATE DEHYDROGENASE PRECURSOR;
5917	18955		0.89	4.0E-36	RG4023.1	EST_HUMAN	Y19105.r1 Soares placenta NB2HP Homo sapiens cDNA clone IMAGE:139713 5'
6290	19341	32509	2.49	4.0E-36	11497041	NT	Homo sapiens a disintegrin and metalloproteinase domain 22 (ADAM22), transcript variant 3, mRNA
8102	21014	34340	1.89	4.0E-36	MS3320.1	NT	Human platelet Glycoprotein IIb (GPIIb) gene, exons 2-29
9118	22046	35403	1.4	4.0E-36	D87875.1	NT	Homo sapiens DNA for amyloid precursor protein, complete cds
9118	22046	35404	1.4	4.0E-36	D87875.1	NT	Homo sapiens DNA for amyloid precursor protein, complete cds
11426	24342	37787	1.6	4.0E-36	AA400370.1	EST_HUMAN	zu89c10.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:743250 5'
12528	25252		2.02	4.0E-36	11420516	NT	Homo sapiens nuclear factor of activated T-cells, cytoplasmic 2 (NFATC2), mRNA
12568	25765		3.64	4.0E-36	AV753629.1	EST_HUMAN	AV753629 TP Homo sapiens cDNA clone TPGABH01 5'
720	13778	28700	5.9	3.0E-36	AF099810.1	NT	Homo sapiens neurexin II-alpha gene, partial cds
4823	17630	30494	8.32	3.0E-36	10181139	NT	Mus musculus junctophilin 1 (Jp1-pending), mRNA
3211	18259	29158	1.03	2.0E-36	BE259287.1	EST_HUMAN	G01106343F1 NIH_MGC 18 Homo sapiens cDNA clone IMAGE:3342706 5'
5073	18070	30919	2.71	2.0E-36	AW980376.1	EST_HUMAN	QV0-OT0030-240300-174-004 OT0030 Homo sapiens cDNA
5574	18748	31659	2.46	2.0E-36	AF287747.1	NT	Mus musculus p47-phox gene, complete cds
6062	18124	32252	4.78	2.0E-36	T08756.1	EST_HUMAN	EST06848 Infant Brain, Benito Soares Homo sapiens cDNA clone HIBBJ28 5' end
8858	19890	33104	11.42	2.0E-36	T69829.1	EST_HUMAN	jc44a07.r1 Stragelene liver (#837224) Homo sapiens cDNA clone IMAGE:83508 5'
9925	22830	36216	0.87	2.0E-36	BF512794.1	EST_HUMAN	UI-H-BW1-aru-a-11-0-UI.s1 NCL_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3071132 3'

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
10078	22871	36280	0.73	2.0E-36	4507848	NT	Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA
10078	22871	36281	0.73	2.0E-36	4507848	NT	Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA
910	13992	26909	2.47	1.0E-36	BE409310.1	EST_HUMAN	601300388F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635480 5'
2217	15228	28233	1.64	1.0E-36	BF673761.1	EST_HUMAN	602136493F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4272898 6'
3393	16435		1.98	1.0E-36	AF156962.1	NT	Homo sapiens human endogenous retrovirus W provirus 19 protease (pro) gene, partial cds
5931	18998	32118	0.62	1.0E-36	AL044446.1	EST_HUMAN	DKFZp434G022.1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434G022 5'
6118	19177	32312	1.07	1.0E-36	4827064	NT	Homo sapiens zinc finger protein 147 (estrogen-responsive finger protein) (ZNF147) mRNA
6424	19471		4.02	1.0E-36	AI967714.1	EST_HUMAN	w637c12.x1 NCI_CGAP_G08 Homo sapiens cDNA clone IMAGE:2307882 3' similar to contains Alu repetitive element
6653	19692	32885	1.46	1.0E-36	R25012.1	EST_HUMAN	y636g10.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:34529 5' similar to SP:CAHP_HUMAN P35219 CARBONIC ANHYDRASE-RELATED PROTEIN ;
6653	19692	32886	1.46	1.0E-36	R25012.1	EST_HUMAN	y636g10.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:34529 5' similar to SP:CAHP_HUMAN P35219 CARBONIC ANHYDRASE-RELATED PROTEIN ;
6978	20005	33237	0.7	1.0E-36	AL120542.1	EST_HUMAN	DKFZp761A229.r1 761 (synonym: hamy2) Homo sapiens cDNA clone IMAGE:560398 5'
8538	21459	34808	3.87	1.0E-36	AA148034.1	EST_HUMAN	z651a12.r1 Stralagene endothelial cell 937223 Homo sapiens cDNA clone DKFZp761A229 5'
8538	21459	34809	3.87	1.0E-36	AA148034.1	EST_HUMAN	z651a12.r1 Stralagene endothelial cell 937223 Homo sapiens cDNA clone IMAGE:560398 5'
8631	21562	34899	1.3	1.0E-36	AA420467.1	EST_HUMAN	z651a12.r1 Stralagene endothelial cell 937223 Homo sapiens cDNA clone IMAGE:560398 5'
8631	21562	34900	1.3	1.0E-36	AA420467.1	EST_HUMAN	z651a12.r1 Stralagene endothelial cell 937223 Homo sapiens cDNA clone IMAGE:560398 5'
9580	22507	35871	2.58	1.0E-36	AW103658.1	EST_HUMAN	nc60e08.r1 NCI_CGAP_P11 Homo sapiens cDNA clone IMAGE:745670
10615	23501	36934	4.83	1.0E-36	BF384169.1	EST_HUMAN	nc60e08.r1 NCI_CGAP_P11 Homo sapiens cDNA clone IMAGE:745670
10817	23703	37130	1.29	1.0E-36	AW855868.1	EST_HUMAN	QV3-NN1023-010600-195-h01 NN1023 Homo sapiens cDNA
10817	23703	37131	1.29	1.0E-36	AW855868.1	EST_HUMAN	RC3-CT0279-040500-017-a10 CT0279 Homo sapiens cDNA
11387	24303	37750	2.92	1.0E-36	AW597638.1	EST_HUMAN	RC3-CT0279-040500-017-a10 CT0279 Homo sapiens cDNA
11820	24741	38232	3.58	1.0E-36	AW504143.1	EST_HUMAN	CM3-NN0061-140400-147-h12 NN0061 Homo sapiens cDNA
12410	25179		3.83	1.0E-36	11418177	NT	UI-HF-BNO-ale-c-03-Q-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079277 5'
12828	25444		5.38	1.0E-36	AL163213.2	NT	Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA
13053	25584		2.46	1.0E-36	AF202723.1	NT	Homo sapiens chromosome 21 segment HS21C013
7774	20704	34004	2.32	9.0E-37	AW009277.1	EST_HUMAN	Homo sapiens Sad1 unc-84 domain protein 2 (SUN2) mRNA, partial cds
7774	20704	34005	2.32	9.0E-37	AW009277.1	EST_HUMAN	w680b07.x1 NCI_CGAP_C03 Homo sapiens cDNA clone IMAGE:2504245 3'
12651	25326		1.58	9.0E-37	W22018.1	EST_HUMAN	w680b07.x1 NCI_CGAP_C03 Homo sapiens cDNA clone IMAGE:2504245 3'
3405	16447	29355	1.23	8.0E-37	4757979	NT	73D4 Human retina cDNA Tap609i-cleaved sublibrary Homo sapiens cDNA not directional
5429	16611		1.54	8.0E-37	BE698077.1	EST_HUMAN	Homo sapiens chimerin (chimaerin) 2 (CHN2) mRNA
6040	19102	32229	3.98	8.0E-37	BE350127.1	EST_HUMAN	GM0-JT0003-050800-503-409 UT0003 Homo sapiens cDNA
							h09g01.x1 NCI_CGAP_Kid19 Homo sapiens cDNA clone IMAGE:3148256 3' similar to contains MER29.B3
							MER29 repetitive element ;

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6040	19102	32230	3.98	8.0E-37	BE350127.1	EST_HUMAN	h09g01.x1 NCL_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3148256 3' similar to contains MER29.b3
6092	19153	32269	5.86	8.0E-37	AW840840.1	EST_HUMAN	MER29 repetitive element;
8464	21395	34736	7.32	8.0E-37	X87344.1	NT	RC1-CH0008-210100-012-a09_1 CN0008 Homo sapiens cDNA
1311	14344		2.02	7.0E-37	AL042800.1	EST_HUMAN	H.sapiens DMA, DMB, HLA-Z1, IPP2, LMP2, TAP1, LMP7, DOB, DOB2 and RING8, 8, 13 and 14
11197	24123	37569	3.64	7.0E-37	AI817700.1	EST_HUMAN	genes
11333	24252	37689	2.04	7.0E-37	AI538702.1	EST_HUMAN	DKFZp434E0422_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434E0422 5'
5275	18261		4.44	6.0E-37	R10039.1	EST_HUMAN	wk25b11.x1 NCL_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2419341 3' similar to contains PTR5.12
9007	21936	35262	0.86	6.0E-37	AF169889.1	NT	PTR5 repetitive element;
12847	25459		1.5	8.0E-37	U79308.1	NT	Im87g03.x1 NCL_CGAP_Brn28 Homo sapiens cDNA clone IMAGE:2165140 3' similar to contains L1.b3 L1
12947	25512		4.27	6.0E-37	AF202723.1	NT	repetitive element;
6330	19380	32547	5.54	5.0E-37	AA307123.1	EST_HUMAN	yf25a02.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:127850 5'
6330	19380	32548	5.54	5.0E-37	AA307123.1	EST_HUMAN	Homo sapiens protocadherin alpha 10 alternate isoform (PCDH-alpha10) mRNA, complete cds
9316	22244	35605	1.33	5.0E-37	AV760211.1	EST_HUMAN	Human olfactory receptor pseudo_olfr17-01 (OR17-231-1) gene, olfactory receptor olfr17-32 (OR17-32) gene and
11357	24275		4.86	5.0E-37	7657117	NT	olfactory receptor pseudo_olfr17-01 (OR17-01) pseudogene, complete cds
12405	25176		5.01	5.0E-37	AF149773.1	NT	Homo sapiens Sad1 unc-84 domain protein 2 (SUN2) mRNA, partial cds
2447	15451	28447	4.71	4.0E-37	AA702794.1	EST_HUMAN	EST178035 Colon carcinoma (HCC) cell line Homo sapiens cDNA 5' end
6540	19583	32767	0.81	4.0E-37	AW794502.1	EST_HUMAN	EST178035 Colon carcinoma (HCC) cell line Homo sapiens cDNA 5' end
8894	22809	36198	0.82	4.0E-37	AA843808.1	EST_HUMAN	AV750211 NPC Homo sapiens cDNA clone NPCBGH09 5'
2030	15047	28043	2.37	3.0E-37	AL048956.1	EST_HUMAN	Homo sapiens glycine C-acetyltransferase (2-amino-3-ketobutyrate-CoA ligase) (GCAT), mRNA
2030	15047	28044	2.37	3.0E-37	AL048956.1	EST_HUMAN	Homo sapiens NOD1 protein (NOD1) gene, exon 1, 2, and 3
2538	15538		1.69	3.0E-37	AW961150.1	EST_HUMAN	z89b04.s1 Soares fetal liver spleen 1NFLS_51 Homo sapiens cDNA clone IMAGE:448015 3'
3006	16058		4.1	3.0E-37	AW961150.1	EST_HUMAN	RC6-UM0014-210200-021-H05 UM0014 Homo sapiens cDNA
6079	19140	32276	0.65	3.0E-37	AL138274.1	EST_HUMAN	ak09c02.s1 Soares parathyroid tumor_NbHPA Homo sapiens cDNA clone IMAGE:1405442 3'
7864	20791	34094	0.53	3.0E-37	T03080.1	EST_HUMAN	DKFZp434L2418_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434L2418
7987	20906	34222	0.9	3.0E-37	AI749952.1	EST_HUMAN	DKFZp434L2418_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434L2418
402	13515	26436	0.87	2.0E-37	D89780.1	NT	EST173222 MAGe resequences, MAGF Homo sapiens cDNA
402	13515	26437	0.67	2.0E-37	D89780.1	NT	EST173222 MAGe resequences, MAGF Homo sapiens cDNA
							EST173222 MAGe resequences, MAGF Homo sapiens cDNA
							DKFZp434G087_r1 547 (synonym: hbr1) Homo sapiens cDNA clone DKFZp434G087 5'
							FB23B1 Fetal brain, Stralagene Homo sapiens cDNA clone FB23B1 3' end similar to Human somatic
							cytochrome c (HCS) gene
							at34c05.x1 Barstead colon HPLR87 Homo sapiens cDNA clone IMAGE:2373898 3' similar to TR:Q13537
							Q13537 SIMILAR TO POGO ELEMENT;
							Homo sapiens mRNA for AML1, complete cds
							Homo sapiens mRNA for AML1, complete cds



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Table 4

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1108	14150	27090	1.86	2.0E-37	AU131202.1	EST_HUMAN	AU131202 NT2RP3 Homo sapiens cDNA clone NT2RP3002168 5'
1108	14150	27091	1.86	2.0E-37	AU131202.1	EST_HUMAN	AU131202 NT2RP3 Homo sapiens cDNA clone NT2RP3002168 5'
1979	14997	27982	1.21	2.0E-37	AL163247.2	NT	Homo sapiens chromosome 21 segment HS21C047
3963	16691	29875	7.1	2.0E-37	4503210	NT	Homo sapiens cytochrome P450, subfamily XXVIA (steroid 27-hydroxylase, cerebrotendinous xanthomatosis), polypeptide 1 (CYP27A1b) mRNA
5573	18651		0.57	2.0E-37	BF035327.1	EST_HUMAN	601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862088 5'
8825	19859	33070	0.64	2.0E-37	11990817	NT	Homo sapiens mouse thiamin pyrophosphokinase homolog (TPK1), mRNA
6953	19982	33208	3.43	2.0E-37	AA346720.1	EST_HUMAN	EST52631 Fetal heart II Homo sapiens cDNA clone IMAGE:3453657 5'
8575	21506	34850	0.67	2.0E-37	BE537764.1	EST_HUMAN	601067534F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3453657 5'
8575	21506	34851	0.67	2.0E-37	BE537764.1	EST_HUMAN	601067534F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3453657 5'
8615	21546	34887	2.9	2.0E-37	BF204032.1	EST_HUMAN	601869157F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4111409 5'
11992	24834	38332	10.6	2.0E-37	AF176013.1	NT	Homo sapiens J domain containing protein 1 isoform b (JDP1) mRNA, complete cds
13063	25604		5.52	2.0E-37	11417972	NT	Homo sapiens peucedillo (zebrafish) homolog 1, containing BRCT domain (PES1), mRNA
2100	15114	28119	5.86	1.0E-37	AL163281.2	NT	Homo sapiens chromosome 21 segment HS21C081
3241	16280		1.23	1.0E-37	AW862082.1	EST_HUMAN	RC3-CT0347-210400-016-h03 CT0347 Homo sapiens cDNA
4260	17276	30145	1.09	1.0E-37	BE872365.1	EST_HUMAN	601448619F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3852652 5'
5053	18050	30903	2.8	1.0E-37	BF317119.1	EST_HUMAN	QV0-FN0180-280700-318-c10 FN0180 Homo sapiens cDNA
6238	19290		0.97	1.0E-37	7305360	NT	Mus musculus obgolin (Olog), mRNA
8793	21723	35070	0.89	1.0E-37	BE546032.1	EST_HUMAN	601072419F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3458308 5'
9294	22222	35580	3.16	1.0E-37	AA171406.1	EST_HUMAN	zp21b02.11 Stratiene neuroepithelium (#937231) Homo sapiens cDNA clone IMAGE:610059 5' similar to contains L1 L2 L1 repetitive element : . . .
11071	23955	37391	0.51	1.0E-37	AV730743.1	EST_HUMAN	AV730743 HTF Homo sapiens cDNA clone HTFAHG10 5'
11141	24070	37516	2.19	1.0E-37	M22878.1	NT	Human somatic cytochrome c (HC1) processed pseudogene, complete cds
12698	25352		3.76	1.0E-37	BE771814.1	EST_HUMAN	CM3-FT0096-140700-243-407 FT0096 Homo sapiens cDNA
6986	19051	32176	2.07	9.0E-38	10048482	NT	Rattus norvegicus multidomain presynaptic cytomatrix protein Piccolo (LOC58768), mRNA
1250	14286	27229	1.68	8.0E-38	11436955	NT	Homo sapiens Gb2-associated binder 2 (KIAA0371), mRNA
2521	15522	28526	1.44	8.0E-38	BF346221.1	EST_HUMAN	602018401F1 NCI_CGAP_Bn67 Homo sapiens cDNA clone IMAGE:4153992 5'
2197	15208	28212	1.39	7.0E-38	AW972626.1	EST_HUMAN	EST384920 IMAGE ressequences, MAGL Homo sapiens cDNA
3089	16140	29038	1.66	6.0E-38	BF033033.1	EST_HUMAN	601456722F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3859348 5'
5783	18855	31961	1.38	6.0E-38	11425114	NT	Homo sapiens zinc finger protein ZNF287 (ZNF287), mRNA
5783	18855	31962	1.38	6.0E-38	11425114	NT	Homo sapiens zinc finger protein ZNF287 (ZNF287), mRNA
7713	20645	33942	0.56	6.0E-38	8923130	NT	Homo sapiens hypothetical protein FLJ20128 (FLJ20128), mRNA
7780	20709	34011	0.54	6.0E-38	AJ010669.1	NT	Homo sapiens mRNA for potassium channel Kv4.2
7780	20709	34012	0.54	6.0E-38	AJ010669.1	NT	Homo sapiens mRNA for potassium channel Kv4.2

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
12276	25091		4.75	8.0E-38	11435947	NT	Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA
12726	25372	31803	10.22	6.0E-38	AB002059.1	NT	Homo sapiens DNA for Human P2XM, complete cds
760	13807	26732	1.22	5.0E-38	AW971819.1	EST_HUMAN	EST383908 MAGE resequences, MAGL Homo sapiens cDNA
2476	15480	28481	1.46	5.0E-38	AJ237740.1	NT	Homo sapiens RILIR gene (partial), exon 8
4014	17041	29930	1.12	5.0E-38	T83107.1	EST_HUMAN	y40h07.r1 Soares fetal liver spleen INFILS Homo sapiens cDNA clone IMAGE:110749 5' similar to SP:OLF3_MOUSE P23275 OLFACTORY RECEPTOR ;
4014	17041	29931	1.12	5.0E-38	T83107.1	EST_HUMAN	y40h07.r1 Soares fetal liver spleen INFILS Homo sapiens cDNA clone IMAGE:110749 5' similar to SP:OLF3_MOUSE P23275 OLFACTORY RECEPTOR ;
7378	20372	33841	1.47	5.0E-38	BE871810.1	EST_HUMAN	601450148F1 NIH_MGC 65 Homo sapiens cDNA clone IMAGE:3854074 5'
123	13229	26143	3.02	4.0E-38	Z25466.1	NT	B taurus mitochondrial aspartate aminotransferase mRNA, complete CDS
123	13229	26144	3.02	4.0E-38	Z25466.1	NT	B taurus mitochondrial aspartate aminotransferase mRNA, complete CDS
1184	14224	27162	0.83	3.0E-38	11435947	NT	Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA
2112	15125		5.04	3.0E-38	AF003530.1	NT	Homo sapiens homeobox protein CDX4 (CDX4) gene, complete cds and flanking repeat regions
3761	16793		1.32	3.0E-38	7548807	NT	Homo sapiens HIRA interacting protein 4 (dnal-like) (HIRP4), mRNA
3922	16950	29833	2.25	3.0E-38	P53538	SWISSPROT	SSU72 PROTEIN
3922	16950	29834	2.25	3.0E-38	P53538	SWISSPROT	SSU72 PROTEIN
7058	25662	33316	6.82	3.0E-38	AL163300.2	NT	Homo sapiens chromosome 21 segment HS21C100
7614	20549	33841	0.84	3.0E-38	AW302461.1	EST_HUMAN	xv04d01.x1 NCL CGAP_Bri53 Homo sapiens cDNA clone IMAGE:2827008 3'
8015	20932		0.67	3.0E-38	AA378327.1	EST_HUMAN	EST01188 Synovial sarcoma Homo sapiens cDNA 5' end
8028	20944	34260	6.71	3.0E-38	BF378684.1	EST_HUMAN	CM3-FT0181-140700-241-407 FT0181 Homo sapiens cDNA
9209	22137	35494	2.29	3.0E-38	H85494.1	EST_HUMAN	y88504.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:249775 5'
9209	22137	35495	2.29	3.0E-38	H85494.1	EST_HUMAN	y88504.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:249775 5'
10478	23366		1.74	3.0E-38	AL163248.2	NT	Homo sapiens chromosome 21 segment HS21C048
53	13170	26068	1.86	2.0E-38	AL163248.2	NT	Homo sapiens chromosome 21 segment HS21C048
1407	14438	27392	1.44	2.0E-38	5902097	NT	Homo sapiens SMT3 (suppressor of mit two 3, yeast) homolog 2 (SMT3H2), mRNA
1673	14703	27664	2.29	2.0E-38	AA437353.1	EST_HUMAN	zw30d01.r1 Soares ovary tumor NbhOT Homo sapiens cDNA clone IMAGE:770785 6' similar to SW:MA12_RABIT P45701 MANNOSYL-OLIGOSACCHARIDE ALPHA-1,2-MANNOSIDASE ;
1673	14703	27665	2.29	2.0E-38	AA437353.1	EST_HUMAN	zw30d01.r1 Soares ovary tumor NbhOT Homo sapiens cDNA clone IMAGE:770785 6' similar to SW:MA12_RABIT P45701 MANNOSYL-OLIGOSACCHARIDE ALPHA-1,2-MANNOSIDASE ;
2432	15436	28436	1.06	2.0E-38	W76571.1	EST_HUMAN	zdc6g08.r1 Soares fetal heart NbhH19W Homo sapiens cDNA clone IMAGE:346694 5'
4695	17700	30565	2.75	2.0E-38	4557887	NT	Homo sapiens keratin 18 (KRT18) mRNA
5252	18238	31089	0.94	2.0E-38	AA437181.1	EST_HUMAN	zw61d09.r1 Soares testis NfT Homo sapiens cDNA clone IMAGE:758129 5' similar to TR:G817857
5270	18256	31106	0.76	2.0E-38	BE296224.1	EST_HUMAN	G817957 GLYCINE RECEPTOR SUBUNIT ALPHA 4 ;
							601177386F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532580 5'

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5270	18258	31107	0.76	2.0E-38	BE286224.1	EST_HUMAN	601177386F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532580 5'
5280	18238	31089	0.76	2.0E-38	AA437181.1	EST_HUMAN	z61d09.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:768129 5' similar to TR:G817857
5920	18987	32105	0.64	2.0E-38	Z26634.2	NT	G817957 GLYCINE RECEPTOR SUBUNIT ALPHA 4;
5920	18987	32106	0.64	2.0E-38	Z26634.2	NT	Homo sapiens mRNA for ankryrin B (440 kDa)
8180	21087	34421	1.5	2.0E-38	AV721103.1	EST_HUMAN	Homo sapiens mRNA for ankryrin B (440 kDa)
9053	21982		4.83	2.0E-38	BE165990.1	EST_HUMAN	AV721103 HTB Homo sapiens cDNA clone HT3ARH11 5'
9452	22380	35742	0.53	2.0E-38	F09450.1	EST_HUMAN	MR3-HT0487-150200-113-g01 HT0487 Homo sapiens cDNA
9517	22444	35807	1.72	2.0E-38	AF069765.1	NT	HSC18F031 normalized Infant brain cDNA Homo sapiens cDNA clone c-18f03
9762	22886		1.63	2.0E-38	BE222258.1	EST_HUMAN	Homo sapiens orphan G protein-coupled receptor HG20 (HG20) mRNA, complete cds
10929	23814	37243	1.81	2.0E-38	D63479.2	NT	hu08g02.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3166130 3' similar to TR:O02710 O02710
11683	24587	38064	4.61	2.0E-38	AA595480.1	EST_HUMAN	GAG POLYPROTEIN ;
11683	24587	38065	4.61	2.0E-38	AA595480.1	EST_HUMAN	Homo sapiens mRNA for KIAA0145 protein, partial cds
11922	24767	38264	4.98	2.0E-38	BE712780.1	EST_HUMAN	nc34g03.s1 NCI_CGAP_Pr23 Homo sapiens cDNA clone IMAGE:1102812 3' similar to TR:E212316
12065	24906	38407	3.96	2.0E-38	AF190501.1	NT	E212316 NADP DEPENDENT LEUKOTRIENE B4 12-HYDROXYDEHYDROGENASE ;
12065	24906	38408	3.96	2.0E-38	AF190501.1	NT	nc34g03.s1 NCI_CGAP_Pr23 Homo sapiens cDNA clone IMAGE:1102812 3' similar to TR:E212316
12327	25127		2.06	2.0E-38	AB012723.1	NT	E212316 NADP DEPENDENT LEUKOTRIENE B4 12-HYDROXYDEHYDROGENASE ;
12329	25127		2.05	2.0E-38	M55630.1	NT	QV2-HT0698-080800-283-a05 HT0698 Homo sapiens cDNA
12590	25287		3.76	2.0E-38	H55641.1	EST_HUMAN	Homo sapiens leucine-rich repeat-containing G protein-coupled receptor 8 (LGR8) mRNA, partial cds
12601	25297	31845	2.34	2.0E-38	S74908.1	NT	Homo sapiens leucine-rich repeat-containing G protein-coupled receptor 8 (LGR8) mRNA, partial cds
12683	25334		2.31	1.0E-38	AA401570.1	EST_HUMAN	Homo sapiens leucine-rich repeat-containing G protein-coupled receptor 8 (LGR8) mRNA, partial cds
1120	14162		1.5	1.0E-38	4985288	NT	AV726988 HTC Homo sapiens cDNA clone HTCAH07 5'
2015	15033	28027	1.07	1.0E-38	7601969	NT	Homo sapiens gene for kinesin-like protein, complete cds
2033	15030	28047	2.35	1.0E-38	AF270831.1	NT	Human topoisomerase I pseudogene 2
2517	15518	28522	17.84	1.0E-38	4758371	NT	CHR220580 Chromosome 22 exon Homo sapiens cDNA clone C22_788 5'
2658	15654	28654	3.04	1.0E-38	AL163203.2	NT	zu62h02.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:742539 5' similar to contains element
4430	17441	30301	3.04	1.0E-38	AL163203.2	NT	MER19 repetitive element ;
4430	17441	30302	3.04	1.0E-38	AL163203.2	NT	Homo sapiens guanine nucleotide binding protein-like 1 (GNL1), mRNA

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Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4707	17712	30575	1.16	1.0E-38	8922543	NT	Homo sapiens hypothetical protein FLJ10600 (FLJ10600), mRNA
6260	19311	32475	4.54	1.0E-38	7305360	NT	Mus musculus otogelin (Otog), mRNA
6260	19311	32476	4.54	1.0E-38	7305360	NT	Mus musculus otogelin (Otog), mRNA
7803	20732	34034	2.59	1.0E-38	AB014512.1	NT	Homo sapiens mRNA for KIAA0612 protein, partial cds
9696	22621	35999	0.71	1.0E-38	11422260	NT	Homo sapiens hypothetical protein FLJ10600 (FLJ10600), mRNA
9944	22849	36238	6.24	1.0E-38	BE350127.1	EST_HUMAN	h08g01.x1 NCL_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER29.b3 MER29 repetitive element ;
12465	25705	26074	2.48	1.0E-38	AL163284.2	NT	Homo sapiens chromosome 21 segment HS21C084
57	13174	26074	4.39	8.0E-39	4502312	NT	Homo sapiens ATPase, H+ transporting, lysosomal (vacuolar proton pump) 16kD (ATP6C) mRNA
1421	14452	27408	1.67	8.0E-39	4758229	NT	Homo sapiens estrogen receptor-binding fragment-associated gene 9 (EBAG9) mRNA
1853	14875		2	8.0E-39	AB23404.1	EST_HUMAN	wh631f10.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2384491 3' similar to TR:P87890 P87890 POL PROTEIN ;
2106	15120	28123	8.87	7.0E-39	AL163227.2	NT	Homo sapiens chromosome 21 segment HS21C027
11248	24172	37618	1.99	6.0E-39	BF331829.1	EST_HUMAN	QV1-BT0631-040900-337-02 BT0631 Homo sapiens cDNA
13007	25537		2.04	6.0E-39	BE670394.1	EST_HUMAN	7e54c03.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284356 3' similar to WP:R151.6 CE00828 ;
1036	14082	27022	1.52	5.0E-39	AF003528.1	NT	Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions
3027	16079	29881	8.45	5.0E-39	AI750154.1	EST_HUMAN	at36b04.x1 Barstead cdon HPLRB7 Homo sapiens cDNA clone IMAGE:2374063 3' similar to TR:Q15408 Q15408 NEUTRAL PROTEASE LARGE SUBUNIT ; contains LTR7.t1 LTR7 repetitive element ;
12743	25383		2.33	5.0E-39	11420289	NT	Homo sapiens hypothetical protein FLJ10803 (FLJ10803), mRNA
572	13640	26549	15.64	4.0E-39	AB015610.1	NT	Chlorocebus aethiops mRNA for ribosomal protein S4X, complete cds
3633	16669	29566	0.92	4.0E-39	AL163210.2	NT	Homo sapiens chromosome 21 segment HS21C010
4584	17592		0.88	4.0E-39	AL163209.2	NT	Homo sapiens chromosome 21 segment HS21C009
6041	19103	32231	0.63	4.0E-39	11422113	NT	Homo sapiens EBNA-2 co-activator (100kD) (p100), mRNA
6041	19103	32232	0.63	4.0E-39	11422113	NT	Homo sapiens EBNA-2 co-activator (100kD) (p100), mRNA
8653	21584	34919	0.68	4.0E-39	AA692949.1	EST_HUMAN	ae92g04.s1 Stratagene echizo brain S11 Homo sapiens cDNA clone IMAGE:1020438 3' similar to contains OFR.b1 OFR repetitive element ;
9869	22784	36172	0.61	4.0E-39	D64116.1	NT	Homo sapiens DNA for prostacyclin synthase, exon 2
9869	22784	36173	0.61	4.0E-39	D64116.1	NT	Homo sapiens DNA for prostacyclin synthase, exon 2
12760	25393		6.23	4.0E-39	11418177	NT	Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA
12862	25467		3.9	4.0E-39	BE836452.1	EST_HUMAN	QV0-FN0093-260600-278-06 FN0063 Homo sapiens cDNA
50	13167	28062	10.7	3.0E-39	AA631949.1	EST_HUMAN	fmc16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1

Table 4

## Single Exon Probes Expressed In Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
50	13167	26063	10.7	3.0E-39	AA631949.1	EST_HUMAN	lnc1616 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1
50	13167	26064	10.7	3.0E-39	AA631949.1	EST_HUMAN	lnc1616 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1
12310	26120	38157	6.06	3.0E-39	A1084557.1	EST_HUMAN	ox63a10.s1 Soares NIHMPu_S1 Homo sapiens cDNA clone IMAGE:1660986 3' similar to SW:GTR5_RAT P43427 GLUCOSE TRANSPORTER TYPE 5, SMALL INTESTINE ;
12319	25120	38158	5.05	3.0E-39	A1084557.1	EST_HUMAN	ox63a10.s1 Soares NIHMPu_S1 Homo sapiens cDNA clone IMAGE:1660986 3' similar to SW:GTR5_RAT P43427 GLUCOSE TRANSPORTER TYPE 5, SMALL INTESTINE ;
12360	25149		8.33	3.0E-39	H37803.1	EST_HUMAN	yp51C08.s1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:180954 3'
922	13974		8.72	2.0E-39	BE409203.1	EST_HUMAN	B01301607F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638289 5'
937	13989		41.15	2.0E-39	A1528119.1	EST_HUMAN	piemra-7.D01.1 bvtumor Homo sapiens cDNA 5'
1057	14101		3.78	2.0E-39	AF000573.1	NT	Homo sapiens homogenisate 1,2-dioxygenase gene, complete cds
1553	14584		17.9	2.0E-39	AW372318.1	EST_HUMAN	PVQ-BT0340-211299-003-d02 BT0340 Homo sapiens cDNA nw21902.s1 NCL_CGAP_GCB0 Homo sapiens cDNA clone IMAGE:1241138 3' similar to contains THR.I3
1989	15007	27996	3.94	2.0E-39	AA720574.1	EST_HUMAN	THR repetitive element ;
2675	15971	28970	2.37	2.0E-39	AL163248.2	NT	Homo sapiens chromosome 21 segment HS21C048
4509	17519	30385	1.77	2.0E-39	BF370207.1	EST_HUMAN	RC4-FN0037-280700-011-a10 FN0037 Homo sapiens cDNA
5679	18753	31674	4.28	2.0E-39	AA508880.1	EST_HUMAN	ng86f03.s1 NCL_CGAP_P76 Homo sapiens cDNA clone IMAGE:941693
7761	20691	33980	2.1	2.0E-39	AA080887.1	EST_HUMAN	zn06f02.r1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:546851 5'
7959	20860	34191	0.75	2.0E-39	AL163202.2	NT	Homo sapiens chromosome 21 segment HS21C002
7959	20860	34192	0.75	2.0E-39	AL163202.2	NT	Homo sapiens chromosome 21 segment HS21C002
8377	21281	34612	1.41	2.0E-39	A1538173.1	EST_HUMAN	h75f09.x1 NCL_CGAP_K1d11 Homo sapiens cDNA clone IMAGE:2137865 3' similar to TR:Q13537 Q13537 H75709.x1 NCL_CGAP_P76 Homo sapiens cDNA clone IMAGE:1630189 3'
8885	21615	35166	0.65	2.0E-39	AF078779.1	NT	Rattus norvegicus putative four repeat ion channel mRNA, complete cds
10027	22927		0.55	2.0E-39	AA984531.1	EST_HUMAN	am88c11.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:1630189 3'
10152	23043		0.89	2.0E-39	A1686680.1	EST_HUMAN	h335a03.x1 NCL_CGAP_P728 Homo sapiens cDNA clone IMAGE:2253052 3'
11864	24754	38249	3.66	2.0E-39	D86984.1	NT	Human mRNA for KIAA0209 gene, partial cds
12228	25062	38560	1.67	2.0E-39	11525976	NT	Homo sapiens GIOT-2 for gonadotropin inducible transcription repressor-2 (GIOT-2), mRNA
1534	14594	27524	3.13	1.0E-39	AJ006345.1	NT	Homo sapiens KVLQT1 gene
1534	14594	27525	3.13	1.0E-39	AJ006345.1	NT	Homo sapiens KVLQT1 gene
1534	14594	27525	3.13	1.0E-39	AJ006345.1	NT	Homo sapiens KVLQT1 gene
1534	14594	27525	3.13	1.0E-39	AJ006345.1	NT	Homo sapiens KVLQT1 gene
1754	14781	27751	1.02	1.0E-39	H55224.1	EST_HUMAN	CHR220163 Chromosome 22 exon Homo sapiens cDNA clone C22_205 5'
4033	17060	29949	1.16	1.0E-39	AB020684.1	NT	Homo sapiens mRNA for KIAA0877 protein, partial cds
4212	17229	30096	1.13	1.0E-39	11430303	NT	Homo sapiens catenin (cadherin-associated protein), alpha 2 (CTNNA2), mRNA
4212	17229	30097	1.13	1.0E-39	11430303	NT	Homo sapiens catenin (cadherin-associated protein), alpha 2 (CTNNA2), mRNA
4725	17730	30583	0.99	1.0E-39	AW296073.1	EST_HUMAN	UI-H-BWO-ali-h-08-0-UI.s1 NCL_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:2730850 3'

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4770	17775	30642	1.35	1.0E-39	AW951995.1	EST_HUMAN	EST1364065 MAGE resequencas, MAGB Homo sapiens cDNA
4770	17775	30643	1.35	1.0E-39	AW951995.1	EST_HUMAN	EST1364065 MAGE resequencas, MAGB Homo sapiens cDNA
4815	17816	30683	9.43	1.0E-39	7657020	NT	Homo sapiens DKFZ434P211 protein (DKFZ434P211), mRNA
5543	18621	31496	0.84	1.0E-39	11417342	NT	Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEM5A), mRNA
5543	18621	31497	0.84	1.0E-39	11417342	NT	Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEM5A), mRNA
5824	18895	32008	1.77	1.0E-39	T80876.1	EST_HUMAN	yd26g06.11 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:109402 5' similar to contains Alu repetitive element; contains LTR1 repetitive element ;
5861	18932	32050	5.55	1.0E-39	AJ278170.1	NT	Mus musculus mRNA for neuronal interacting factor X 1 (NIX1) (Nix1 gene)
5861	18932	32051	5.55	1.0E-39	AJ278170.1	NT	Mus musculus mRNA for neuronal interacting factor X 1 (NIX1) (Nix1 gene)
7139	20247		1.83	1.0E-39	11438736	NT	Homo sapiens tubby like protein 3 (TULP3), mRNA
7766	20696	33988	2.13	1.0E-39	D78132.1	NT	Homo sapiens mRNA for ras-related GTP-binding protein, complete cds
9127	22055	35415	1.08	1.0E-39	O46530	SWISSPROT	RIBONUCLEASE K6 PRECURSOR (RNAse K6)
11362	24280	37723	1.48	1.0E-39	4759051	NT	Homo sapiens ribosomal protein S6 kinase, 90kD, polypeptide 5 (RPS6KA5) mRNA
577	13645	26582	2.46	9.0E-40	5803210	NT	Homo sapiens UDP-glucose pyrophosphorylase 2 (UGP2), mRNA
1263	14297	27242	12	9.0E-40	4755145	NT	Homo sapiens AE-binding protein 1 (AEBP1) mRNA
1263	14297	27243	12	9.0E-40	4755145	NT	Homo sapiens AE-binding protein 1 (AEBP1) mRNA
3851	16880	28765	0.78	9.0E-40	4503764	NT	Homo sapiens fragile X mental retardation 1 (FMR1) mRNA
4057	19402	29988	4.69	9.0E-40	AB033070.1	NT	Homo sapiens mRNA for KIAA1244 protein, partial cds
4620	17466	30323	0.72	9.0E-40	4507948	NT	Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA
3088	16139	28037	0.92	8.0E-40	AA078185.1	EST_HUMAN	7H15A04 Chromosome 7 Hel a cDNA Library Homo sapiens cDNA clone 7H15A04
3998	17025		1.48	8.0E-40	BE396541.1	EST_HUMAN	601288938F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3619166 5'
8177	21084	34416	2.02	7.0E-40	U60325.1	NT	Human DNA polymerase gamma mRNA, nuclear gene encoding mitochondrial protein, complete cds
8177	21084	34417	2.02	7.0E-40	U60325.1	NT	Human DNA polymerase gamma mRNA, nuclear gene encoding mitochondrial protein, complete cds
11335	24254	37692	2.49	7.0E-40	AL163246.2	NT	Homo sapiens chromosome 21 segment HS21C048
2775	15766	28760	5	6.0E-40	AA361276.1	EST_HUMAN	EST70527 T-cell lymphoma Homo sapiens cDNA 5' end similar to zinc finger protein family
2775	15766	28761	5	6.0E-40	AA361275.1	EST_HUMAN	EST70527 T-cell lymphoma Homo sapiens cDNA 5' end similar to zinc finger protein family
6164	19221		2	6.0E-40	BE504766.1	EST_HUMAN	hz40g01.x1 NCL_CGAP_G08 Homo sapiens cDNA clone IMAGE:3210480 3'
6387	19439		1.28	6.0E-40	7661989	NT	Homo sapiens KIAA0211 gene product (KIAA0211), mRNA

Table 4

## Single Exon Probes Expressed In Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Description
7265	20174	33415	3.95	6.0E-40	11439783	NT	Homo sapiens fatty acid desaturase 1 (FADS1), mRNA
7265	20174	33416	3.95	6.0E-40	11439783	NT	Homo sapiens fatty acid desaturase 1 (FADS1), mRNA
10483	23371	36784	9.8	6.0E-40	AV653028.1	EST_HUMAN	AV653028 GLC Homo sapiens cDNA clone GLC DGF04 3'
10483	23371	36785	9.8	6.0E-40	AV653028.1	EST_HUMAN	AV653028 GLC Homo sapiens cDNA clone GLC DGF04 3'
2647	16643	28642	3.38	6.0E-40	AL163285.2	NT	Homo sapiens chromosome 21 segment HS21C085
1899	14920	27800	4.03	4.0E-40	AI686005.1	EST_HUMAN	H91b01.x1 NCL CGAP_P128 Homo sapiens cDNA clone IMAGE:2248873 3' similar to TR:O73505 O73505 POL PROTEIN. ;
2120	15133		5.66	4.0E-40	AF003528.1	NT	Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions
4496	17506	30372	12.55	4.0E-40	7682117	NT	Homo sapiens KIAA0433 protein (KIAA0433), mRNA
8465	21397	34738	0.6	4.0E-40	AU127831.1	EST_HUMAN	AU127831 NT2RP2 Homo sapiens cDNA clone NT2RP2002172 5'
8571	21502	34845	4.56	4.0E-40	AA742809.1	EST_HUMAN	nv34e10.r1 NCL CGAP_B14 Homo sapiens cDNA clone IMAGE:1222122
9607	22533	35902	5.87	4.0E-40	BE009416.1	EST_HUMAN	PMO-BN0167-070500-002-h12 BN0167 Homo sapiens cDNA
9607	22533	35903	5.67	4.0E-40	BE009416.1	EST_HUMAN	PMO-BN0167-070500-002-h12 BN0167 Homo sapiens cDNA
4230	17246	30115	1.04	3.0E-40	AI825948.1	EST_HUMAN	wh12607.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2380549 3'
6738	19770	32980	0.61	3.0E-40	4506738	NT	Homo sapiens ribosomal protein S6 kinase, 70kD, polypeptide 1 (RPS6KB1) mRNA
6931	19980	33181	7.22	3.0E-40	11417342	NT	Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaforin) 5A (SEMA5A), mRNA
8952	21882	35241	3.77	3.0E-40	5454167	NT	Homo sapiens HBV associated factor (XAP4) mRNA
9521	22448	35811	1.3	3.0E-40	AF078779.1	NT	Rattus norvegicus putative four repeat ion channel mRNA, complete cds
9762	22676	36060	1.79	3.0E-40	AF078779.1	NT	Rattus norvegicus putative four repeat ion channel mRNA, complete cds
11105	24036	37491	1.57	3.0E-40	D86964.1	NT	Rattus norvegicus putative four repeat ion channel mRNA, complete cds
11711	24613	38089	10.95	3.0E-40	6005613	NT	Human mRNA for KIAA0209 gene, partial cds
346	13434		7.41	2.0E-40	AI223036.1	EST_HUMAN	Homo sapiens serine threonine protein kinase (NDR), mRNA
821	13876		8.11	2.0E-40	AW303888.1	EST_HUMAN	qg52h08.x1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1838947 3'
1848	14870		9.06	2.0E-40	AV731601.1	EST_HUMAN	x24e10.x1 NCL CGAP_U14 Homo sapiens cDNA clone IMAGE:2761098 3' similar to SW:RS5_MOUSE
1949	14969	27949	1.3	2.0E-40	4506188	NT	P97461 40S RIBOSOMAL PROTEIN S5 ;
1949	14969	27950	1.3	2.0E-40	4506188	NT	AV731601 HTF Homo sapiens cDNA clone HTFAZE05 5'
2065	15099	28098	1.02	2.0E-40	AI686562.1	EST_HUMAN	Homo sapiens proteasome (prosome, macropain) subunit, alpha type, 7 (PSMA7) mRNA, and translated products
2182	15193	28199	1.48	2.0E-40	5453592	NT	Homo sapiens proteasome (prosome, macropain) subunit, alpha type, 7 (PSMA7) mRNA, and translated products
							w80a11.x1 NCL CGAP_GC8 Homo sapiens cDNA clone IMAGE:2514716 3' similar to TR:Q91929 Q91929 ZINC FINGER PROTEIN. ;
							Homo sapiens adenyl cyclase-associated protein 2 (CAP2) mRNA

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2740	15733		0.97	2.0E-40	BE276932.1	EST_HUMAN	601121567F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3345784 5'
3171	16221	29112	5.03	2.0E-40	5453592	NT	Homo sapiens adenylyl cyclase-associated protein 2 (CAP2) mRNA
5009	18007	30866	1.59	2.0E-40	AL193280.2	NT	Homo sapiens chromosome 21 segment HS21C080
5009	18007	30867	1.59	2.0E-40	AL163280.2	NT	Homo sapiens chromosome 21 segment HS21C080
5344	18327	31176	1.89	2.0E-40	4505880	NT	Homo sapiens plasmidogen (PLG) mRNA
12210	25044	38547	1.74	2.0E-40	AI377428.1	EST_HUMAN	tc35d11.x1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:2066613 3' similar to contains element L1 repetitive element
12210	25044	38548	1.74	2.0E-40	AI377428.1	EST_HUMAN	tc35d11.x1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:2066613 3' similar to contains element L1 repetitive element
908	13960		1.6	1.0E-40	AA225989.1	EST_HUMAN	nc09a09.s1 NCL_CGAP_P11 Homo sapiens cDNA clone IMAGE:1007608
2697	16663	28663	1.68	1.0E-40	BF036881.1	EST_HUMAN	601460375F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3863803 5'
2735	15728		2.75	1.0E-40	BE018348.1	EST_HUMAN	bb79a10.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3048570 5' similar to TR:Q9Z158 Q9Z158 SYNTAXIN 17.
2786	13776	28771	1.09	1.0E-40	BF541030.1	EST_HUMAN	60206604F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4067736 5'
2786	15776	28772	1.09	1.0E-40	BF541030.1	EST_HUMAN	60206604F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4067736 5'
3341	16387		2.04	1.0E-40	4507142	NT	Homo sapiens sorting nexin 3 (SNX3) mRNA
4720	17725	30588	2.82	1.0E-40	4508012	NT	Homo sapiens zinc finger protein 200 (ZNF200) mRNA, and translated products
6504	19548	32726	0.75	1.0E-40	W92708.1	EST_HUMAN	zh79f11.s1 Soares_fetal_liver_spleen_1NFLS_31 Homo sapiens cDNA clone IMAGE:418317 3'
6504	19548	32727	0.75	1.0E-40	W92708.1	EST_HUMAN	zh79f11.s1 Soares_fetal_liver_spleen_1NFLS_31 Homo sapiens cDNA clone IMAGE:418317 3'
7446	20387	33656	2.17	1.0E-40	AA573201.1	EST_HUMAN	ti42f04.s1 NCL_CGAP_AA1 Homo sapiens cDNA clone IMAGE:995167 3'
7446	20387	33657	2.17	1.0E-40	AA573201.1	EST_HUMAN	ti42f04.s1 NCL_CGAP_AA1 Homo sapiens cDNA clone IMAGE:995167 3'
7602	20637	33826	0.6	1.0E-40	P26808	SWISSPROT	POL POLYPROTEIN [CONTAINS: PROTEASE ; REVERSE TRANSCRIPTASE ; RIBONUCLEASE H]
12712	25832		9.64	1.0E-40	BF334112.1	EST_HUMAN	MR2-C10222-211099-002-s10 C10222 Homo sapiens cDNA
8500	21431	34772	1.79	8.0E-41	AL163203.2	NT	Homo sapiens chromosome 21 segment HS21C003
853	15886	26850	1.4	7.0E-41	AI934364.1	EST_HUMAN	wp04h04.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2463895 3'
853	15886	26851	1.4	7.0E-41	AI934364.1	EST_HUMAN	wp04h04.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2463895 3'
5446	19527	31253	1.12	7.0E-41	11545770	NT	Homo sapiens hypothetical protein FLJ13188 (FLJ13188) mRNA
6241	19295	32454	3.07	7.0E-41	11419208	NT	Homo sapiens a disintegrin and metalloproteinase domain 22 (ADAM22) mRNA
6911	19652	32836	0.86	7.0E-41	11433010	NT	Homo sapiens IQ motif containing GTPase activating protein 1 (IQGAP1) mRNA
7334	18502	31277	0.76	7.0E-41	U72335.1	NT	Human platelet activating factor acetylhydrolase, brain isoform, 45 kDa subunit (LIS1) gene, exons 3 and 4
11866	21756	38250	2.03	7.0E-41	4758445	NT	Homo sapiens guanine nucleotide binding protein 10 (GNNG10) mRNA
12057	24898	39403	1.73	7.0E-41	AF223391.1	NT	Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cda, alternatively spliced



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Table 4  
Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
13081	28828		8.62	7.0E-41	11417972	NT	Homo sapiens pscadillo (zebrafish) homolog 1, containing BRCT domain (PES1), mRNA
300	13393	26312	1.92	6.0E-41	AB037163.1	NT	Homo sapiens DSCRB5 mRNA, complete cds
2123	15139	28142	1.68	6.0E-41	7657042	NT	Homo sapiens Down syndrome candidate region 1 (DSOR1), mRNA
8549	21480	34821	1.38	6.0E-41	BF513783.1	EST_HUMAN	UI-H-BW1-amp-b-03-0-UI-s1 NCL CGAP_Sub7, Homo sapiens cDNA clone IMAGE:3070421 3'
1824	14847	27823	1.1	6.0E-41	T62628.1	EST_HUMAN	yc03e10.s1 Stratiogene lung (#937210) Homo sapiens cDNA clone IMAGE:79826 3'
4202	17220		1.23	5.0E-41	4885038	NT	Homo sapiens target of myb1 (chicken) homolog (TOM1), mRNA
6827	18863		2.49	5.0E-41	BE07042.1	EST_HUMAN	PM4-BT0341-251199-002-F11 BT0341 Homo sapiens cDNA
412	13495		2.25	4.0E-41	BE188318.1	EST_HUMAN	QVO-HT0387-150200-114-g09 HT0387 Homo sapiens cDNA
1125	14187	27104	1.03	4.0E-41	AU119344.1	EST_HUMAN	AU119344 HEMBA1 Homo sapiens cDNA clone HEMBA1005583 5'
1433	14494	27418	15.71	4.0E-41	AI027117.1	EST_HUMAN	ow45e06.s1 Soares, parathyroid, tumor, Nbhpa Homo sapiens cDNA clone IMAGE:1849784 3' similar to TR:000597 000597 CYTOCHROME C-LIKE POLYPEPTIDE, contains LTR5.b1 LTR5 repetitive element;
1433	14464	27419	15.71	4.0E-41	AI027117.1	EST_HUMAN	ow45e06.s1 Soares, parathyroid, tumor, Nbhpa Homo sapiens cDNA clone IMAGE:1849784 3' similar to TR:000597 000597 CYTOCHROME C-LIKE POLYPEPTIDE, contains LTR5.b1 LTR5 repetitive element;
1445	14475	27436	6.91	4.0E-41	AB008881.1	NT	Homo sapiens gene for activin receptor type IIB, complete cds
1661	14691	27651	6.9	4.0E-41	AI500408.1	EST_HUMAN	Im86c04.x1 NCL CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2165958 3' similar to contains OFR.b1 OFR repetitive element;
2930	15983	28881	5.42	4.0E-41	AJ228041.1	NT	Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3
2930	15983	28882	5.42	4.0E-41	AJ228041.1	NT	Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3
4242	17268	30124	2.16	4.0E-41	X92885.1	NT	H. sapiens DNase I hypersensitive site (HSS-3) enhancer element
6787	19820		1.5	4.0E-41	AV758295.1	EST_HUMAN	AV758295 BM Homo sapiens cDNA clone BMFBHC08 5'
10218	23107	35507	7.78	4.0E-41	BF304683.1	EST_HUMAN	601888096F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4122119 5'
12097	24938		6.55	4.0E-41	AV710480.1	EST_HUMAN	AV710480 Cu Homo sapiens cDNA clone CUAJCC07 5'
12873	25734		1.65	4.0E-41	AV708431.1	EST_HUMAN	AV708431 ADG Homo sapiens cDNA clone ADCARE02 5'
975	14026	28969	1.79	3.0E-41	AB030176.1	NT	Homo sapiens PAD-H19 mRNA for peptidylarginine deiminase type II, complete cds
4444	17465	30314	2.6	3.0E-41	AB026998.1	NT	Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds)
5680	18764	31675	8.05	3.0E-41	X87689.1	NT	H. sapiens mRNA for putative p64 CLCP protein
6642	19681	32872	1.23	3.0E-41	AB037808.1	NT	Homo sapiens mRNA for KIAA1937 protein, partial cds
7632	20567	33862	0.64	3.0E-41	AA356168.1	EST_HUMAN	EST04683 Jurkat T-cells V1 Homo sapiens cDNA 5' and
8268	21171	34505	0.45	3.0E-41	RF54765.1	EST_HUMAN	W75d08.r1 Soares breast 2NbhBst Homo sapiens cDNA clone IMAGE:154575 5'
12150	24989	38489	1.49	3.0E-41	AJ228041.1	NT	Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3
12282	25098		2.71	3.0E-41	AA609768.1	EST_HUMAN	af17110.s1 Soares, testis, NHT Homo sapiens cDNA clone IMAGE:1031947 3'

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1847	14612	27575	12.06	2.0E-41	U43701.1	NT	Human ribosomal protein L23a mRNA, complete cds
1972	14990	27973	1.69	2.0E-41	AA331940.1	EST_HUMAN	EST35818 Embryo, 8 week 1 Homo sapiens cDNA 5' end
2233	15243	28231	1.27	2.0E-41	D89892.1	NT	Human mRNA for KIAA0207 gene, complete cds
2285	15293	28301	5.57	2.0E-41	X89631.1	NT	G.gorilla DNA for ZNF80 gene homolog
2876	14612	27575	5.54	2.0E-41	U43701.1	NT	Human ribosomal protein L23a mRNA, complete cds
4735	17740	30602	2.07	2.0E-41	AL163267.2	NT	Homo sapiens chromosome 21 segment HS21C067
4735	17740	30603	2.07	2.0E-41	AL163267.2	NT	Homo sapiens chromosome 21 segment HS21C067
5729	18802	31895	0.55	2.0E-41	AA584575.1	EST_HUMAN	no12c07.s1 NCL CGAP_Pherf Homo sapiens cDNA clone IMAGE:1100460 3' similar to gb:X52851_rnat
6917	19947	33187	0.68	2.0E-41	4504778	NT	PEPTIDYL-PROLYL CIS-TRANS ISOMERASE A (HUMAN);
7844	20866	34178	0.57	2.0E-41	11439575	NT	Homo sapiens integrin, beta 8 (ITGB8) mRNA
8125	21035	34384	7.09	2.0E-41	AF038404.1	NT	Homo sapiens tryptophan hydroxylase (tryptophan 5-monooxygenase) (TPH), mRNA
8381	21285	34916	0.47	2.0E-41	11422047	NT	Homo sapiens homolog of Nedd5 (Nedd5) mRNA, complete cds
8646	21577	34914	1.73	2.0E-41	M96944.1	NT	Homo sapiens origin recognition complex, subunit 5 (yeast homolog)-like (ORCSL), mRNA
8646	21577	34915	1.73	2.0E-41	M96944.1	NT	Human B-cell specific transcription factor (BSAP) mRNA, complete cds
8675	21606	34948	1.42	2.0E-41	AA328265.1	EST_HUMAN	Human B-cell specific transcription factor (BSAP) mRNA, complete cds
9526	22453	35816	1.6	2.0E-41	P52742	SWISSPROT	EST31723 Embryo, 12 week 1 Homo sapiens cDNA 5' end
9551	22855	36243	0.62	2.0E-41	11417118	NT	ZINC FINGER PROTEIN 135
9551	22855	36244	0.62	2.0E-41	11417118	NT	Homo sapiens KIAA0433 protein (KIAA0433), mRNA
11917	24784	38261	2.55	2.0E-41	AA372637.1	EST_HUMAN	Homo sapiens KIAA0433 protein (KIAA0433), mRNA
12789	25417	31790	2.57	2.0E-41	AB011399.1	NT	EST84555 Colon adenocarcinoma IV Homo sapiens cDNA 5' end
3250	16298	28202	0.93	1.0E-41	BE869735.1	EST_HUMAN	Homo sapiens gene for AF-6, complete cds
3250	16298	29203	0.93	1.0E-41	BE869735.1	EST_HUMAN	601445647F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3849803 5'
4682	17687	30554	2.78	1.0E-41	6678468	NT	601445647F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3849803 5'
7167	18439	31341	0.56	1.0E-41	H99079.1	EST_HUMAN	Mus musculus tubulin alpha 6 (Tuba6), mRNA
9952	22857	36245	1.73	1.0E-41	AI217868.1	EST_HUMAN	YX1803.s1 Soares melanocyte 2NbhM Homo sapiens cDNA clone IMAGE:282061 3'
12404	25175		2.43	1.0E-41	11528291	NT	q176c10.x1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1756858 3'
9085	22014		1.27	9.0E-42	BE179191.1	EST_HUMAN	Homo sapiens hypothetical protein FLJ20454 (FLJ20454), mRNA
9716	22041	36021	2.86	9.0E-42	11560151	NT	RCO-HT0613-210300-032-g01 HT0613 Homo sapiens cDNA
9716	22641	36022	2.86	9.0E-42	11560151	NT	Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA
485	13555	26472	5.02	8.0E-42	AF003530.1	NT	Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA
2121	15134	28140	2.62	8.0E-42	AB028698.1	NT	Homo sapiens homeobox protein CDX4 (CDX4), gene, complete cds and flanking repeat regions
							Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds)

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
12441	28835		61.24	8.0E-42	AA493896.1	EST_HUMAN	h07c02.s1 NCL CGAP_Thy1 Homo sapiens cDNA clone IMAGE:943586 similar to TR:G434304 G434304 367BP EXPRESSED SEQUENCE TAG MRNA ;
12458	25726		2.16	8.0E-42	AW088062.1	EST_HUMAN	xc97a04.x1 NCL CGAP_Bm35 Homo sapiens cDNA clone IMAGE:2692174 3' similar to contains OFR.12 OFR repetitive element ;
860	14010		2.25	7.0E-42	AL163285.2	NT	Homo sapiens chromosome 21 segment HS21C085
8040	21969		0.65	7.0E-42	R10963.1	EST_HUMAN	yf38g04.r1 Soares fetal liver spleen TNFLS Homo sapiens cDNA clone IMAGE:129174 5'
9786	22750	36132	1.58	7.0E-42	A1204358.1	EST_HUMAN	qf58g12.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1754278 3'
11616	24524	37983	1.44	7.0E-42	AA558592.1	EST_HUMAN	mf23g07.s1 NCL CGAP_P1 Homo sapiens cDNA clone IMAGE:914652
11616	24524	37994	1.44	7.0E-42	AA558592.1	EST_HUMAN	mf23g07.s1 NCL CGAP_P1 Homo sapiens cDNA clone IMAGE:914652
11633	24777		1.45	7.0E-42	AA640580.1	EST_HUMAN	mf23g07.s1 NCL CGAP_P1 Homo sapiens cDNA clone IMAGE:914652
1880	14901	27893	2.07	6.0E-42	AF012872.1	NT	Homo sapiens phosphatidylinositol 4-kinase 230 (p14K230) mRNA, complete cds
1880	14901	27884	2.07	6.0E-42	AF012872.1	NT	Homo sapiens phosphatidylinositol 4-kinase 230 (p14K230) mRNA, complete cds
2308	15316		2.49	6.0E-42	AW238856.1	EST_HUMAN	xp28f08.x1 NCL CGAP_HN10 Homo sapiens cDNA clone IMAGE:2741789 3' similar to contains L1.H L1 repetitive element ;
5664	18728	31633	1.43	6.0E-42	AB028990.1	NT	Homo sapiens mRNA for KIAA1067 protein, partial cds
5918	18728	31633	1.26	6.0E-42	AB028990.1	NT	Homo sapiens mRNA for KIAA1067 protein, partial cds
140	13242		5.66	5.0E-42	AJ271736.1	NT	Homo sapiens Xq pseudautosomal region; segment 1/2
461	13533	28453	1.77	5.0E-42	BE217913.1	EST_HUMAN	h031e11.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3175052 3'
509	13580		2.7	5.0E-42	5730038	NT	Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA
510	13581		2.08	5.0E-42	5730038	NT	Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA
6993	20010	33241		6.0E-42	11433063	NT	Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A), mRNA
6993	20010	33242	1.09	5.0E-42	11433063	NT	Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A), mRNA
7112	20318	33580	3.11	5.0E-42	11417657	NT	Homo sapiens myotubularin related protein 3 (MTMR3), mRNA
7668	20604	33792	2.33	5.0E-42	AF071569.1	NT	Homo sapiens multifunctional calcium/calmodulin-dependent protein kinase II delta isoform mRNA, complete cds
8326	21231	34566	0.44	6.0E-42	4826977	NT	Homo sapiens reelin (RELN) mRNA
9338	22266	35629	2.5	5.0E-42	AB037715.1	NT	Homo sapiens mRNA for KIAA1284 protein, partial cds
11070	23954	37389	0.94	5.0E-42	11431168	NT	Homo sapiens 3-hydroxyanthranilate 3,4-dioxygenase (HAAO), mRNA
11070	23954	37390	0.94	5.0E-42	11431168	NT	Homo sapiens 3-hydroxyanthranilate 3,4-dioxygenase (HAAO), mRNA
11436	24352	37800	2.76	5.0E-42	8923162	NT	Homo sapiens hypothetical protein FLJ20163 (FLJ20163), mRNA
12205	25040	38543	2.03	6.0E-42	X98411.1	NT	H. sapiens mRNA for myosin-II
12205	25040	38544	2.03	5.0E-42	X98411.1	NT	H. sapiens mRNA for myosin-II

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
777	13834	26767	6.96	4.0E-42	AF050566.1	NT	Homo sapiens MHC class 1 region
777	13834	26768	6.96	4.0E-42	AF050566.1	NT	Homo sapiens MHC class 1 region
1093	14136	27073	1.14	4.0E-42	AF189011.1	NT	Homo sapiens ribonuclease III (RN3) mRNA, complete cds
4200	17304	30173	1.25	4.0E-42	X59417.1	NT	H. sapiens PROS-27 mRNA
4327	17341	30207	1.11	4.0E-42	AF246219.1	NT	Homo sapiens SNARE protein kinase SNAK mRNA, complete cds
4347	17361	30226	5.79	4.0E-42	4506498	NT	Homo sapiens regulatory factor X, 4 (influences HLA class II expression) (RFX4) mRNA
4697	17702	30566	13.24	4.0E-42	4508008	NT	Homo sapiens zinc finger protein 177 (ZNF177) mRNA
10982	23846	37272	0.78	4.0E-42	AW371201.1	EST_HUMAN	GMO-BT0282-171289-127-b03 BT0282 Homo sapiens cDNA
11093	24024	37486	2.94	4.0E-42	AW818630.1	EST_HUMAN	RC1-ST0278-040400-018-h11 ST0278 Homo sapiens cDNA
11093	24024	37487	2.94	4.0E-42	AW818630.1	EST_HUMAN	RC1-ST0278-040400-018-h11 ST0278 Homo sapiens cDNA
1501	14632	27497	2.85	2.0E-42	BF376834.1	EST_HUMAN	RCO-TN0078-110900-024-g07 TN0078 Homo sapiens cDNA
2437	15441		4.27	2.0E-42	AW690344.1	EST_HUMAN	RC3-NN0070-270400-011-h10 NN0070 Homo sapiens cDNA
2449	15453	28449	4.09	2.0E-42	AW250059.1	EST_HUMAN	2819293.3prime NIH_MGC 7 Homo sapiens cDNA clone IMAGE:2819293 3'
5963	18030	32150	19.97	2.0E-42	AW955388.1	EST_HUMAN	EST367438 MAGC resequences, MAGC Homo sapiens cDNA
5963	18030	32151	19.97	2.0E-42	AW955388.1	EST_HUMAN	EST367438 MAGC resequences, MAGC Homo sapiens cDNA
6764	19798	33010	0.56	2.0E-42	M29145.1	NT	Human hepatocyte growth factor (HGF) mRNA, complete cds
7057	20083	33315	0.91	2.0E-42	A052586.1	EST_HUMAN	ow83d05.x1 Soares_fetal_liver_spleen_1INFLS_S1 Homo sapiens cDNA clone IMAGE:1653417 3'
10356	23245	36664	1.27	2.0E-42	BE938919.1	EST_HUMAN	601061284F1 NIH_MGC 10 Homo sapiens cDNA clone IMAGE:3447620 5'
10557	23443	36864	0.58	2.0E-42	P81649	SWISSPROT	RIBONUCLEASE K3 (RNASE K3)
10557	23443	36865	0.58	2.0E-42	P81649	SWISSPROT	RIBONUCLEASE K3 (RNASE K3)
757	13813	26742	1.28	1.0E-42	X57147.1	NT	Human endogenous reovirus pHc.1 (ERV9)
1066	14112	27032	1.1	1.0E-42	AW295909.1	EST_HUMAN	UI-H-B1-afh-e-04-0-UJ.st1 NCJ CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2721871 3'
1128	14170	27107	12.36	1.0E-42	AJ251818.1	NT	Homo sapiens partial C9 gene for complement component C9, exon 1
1128	14170	27108	12.36	1.0E-42	AJ251818.1	NT	Homo sapiens partial C9 gene for complement component C9, exon 1
1270	16809	27254	13.15	1.0E-42	AF067166.1	NT	Homo sapiens NADH-ubiquinone oxidoreductase AGGG subunit precursor homolog mRNA, nuclear gene encoding mitochondrial protein, complete cds
1270	16809	27255	13.15	1.0E-42	AF067166.1	NT	Homo sapiens NADH-ubiquinone oxidoreductase AGGG subunit precursor homolog mRNA, nuclear gene encoding mitochondrial protein, complete cds
1727	14754	27724	0.95	1.0E-42	11423219	NT	Homo sapiens res (LOC51201), mRNA
2044	15081	28062	1.28	1.0E-42	AF110296.1	NT	Homo sapiens PDNRP1 gene, exon 17
2676	15574	28570	1.77	1.0E-42	5174458	NT	Homo sapiens major histocompatibility complex, class II, DM alpha (HLA-DMA) mRNA
3005	16057	28961	8.99	1.0E-42	4505524	NT	Homo sapiens origin recognition complex, subunit 5 (yeast homolog-like) (ORC5L) mRNA, and translated products
3771	16803	28690	2.39	1.0E-42	7662027	NT	Homo sapiens KIAA0255 gene product (KIAA0255), mRNA

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3859	18888	28773	0.99	1.0E-42	5031610	NT	Homo sapiens Golgi vesicular membrane trafficking protein p18 (BET1) mRNA
4000	17027	29916	1.64	1.0E-42	AL163267.2	NT	Homo sapiens chromosome 21 segment HS21C067
4344	17358	30223	2.1	1.0E-42	AL183260.2	NT	Homo sapiens chromosome 21 segment HS21C080
4859	17861	30726	1.82	1.0E-42	5803122	NT	Homo sapiens proteasome inhibitor (P31), mRNA
4859	17861	30727	1.82	1.0E-42	5803122	NT	Homo sapiens proteasome inhibitor (P31), mRNA
4891	17890	30756	6.88	1.0E-42	4506758	NT	Homo sapiens ryanodine receptor 3 (RYR3), mRNA
5074	18071	30920	0.67	1.0E-42	Z46120.1	EST_HUMAN	HSC0F071 normalized infant brain cDNA Homo sapiens cDNA clone c-0ff07
10588	23474	36801	5.15	9.0E-43	4757989	NT	Homo sapiens chromodomain protein, Y chromosome-like (CDYL) mRNA
675	13737	28649	14.25	8.0E-43	AV736824.1	EST_HUMAN	AV736824 CB Homo sapiens cDNA clone CBLAKH08 5'
675	13737	28650	14.25	8.0E-43	AV736824.1	EST_HUMAN	AV736824 CB Homo sapiens cDNA clone CBLAKH08 5'
724	13782	28704	3.77	8.0E-43	8923276	NT	Homo sapiens hypothetical protein FLJ20297 (FLJ20297), mRNA
724	13782	28705	3.77	8.0E-43	8923276	NT	Homo sapiens hypothetical protein FLJ20297 (FLJ20297), mRNA
724	13782	28706	3.77	8.0E-43	8923276	NT	Homo sapiens hypothetical protein FLJ20297 (FLJ20297), mRNA
5897	18966	32084	0.95	8.0E-43	H13952.1	EST_HUMAN	yc8e11.1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:148172 5'
3709	16741	29630	10.56	7.0E-43	AW246442.1	EST_HUMAN	2822251.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822251 5'
9328	22256		3.22	7.0E-43	AI636748.1	EST_HUMAN	wp69b01.x1 NCI CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2466985 3' similar to TR:O15475 O15475 UNNAMED HERV-H PROTEIN; contains LTR7.b1 LTR7 repetitive element;
1372	14404		5.64	6.0E-43	AA461890.1	EST_HUMAN	ne7d08.s1 NCI CGAP_Ew1 Homo sapiens cDNA clone IMAGE:2466985 3' similar to TR:O15475 O15475 UNNAMED HERV-H PROTEIN; contains LTR7.b1 LTR7 repetitive element;
2633	15631		3.13	6.0E-43	AV708201.1	EST_HUMAN	RIBOSOMAL PROTEIN L30 (HUMAN);
6668	18607	32792	2.69	6.0E-43	9955973	NT	MRP3B, mRNA
7238	20145	33385	2.3	6.0E-43	AW468897.1	EST_HUMAN	hdb0b04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2910991 3' similar to contains MER1.13 MER1 MER1 repetitive element;
10365	23254	36674	2.34	6.0E-43	AA195154.1	EST_HUMAN	zr35a06.r1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:665410 5' similar to TR:G529841
11545	24454		1.91	6.0E-43	AL119158.1	EST_HUMAN	G529841 DB1, COMPLETE CDS; contains element PTR7 repetitive element;
148	13248		1.86	5.0E-43	AL163213.2	NT	DKFZp781L1712_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp781L1712 5'
525	13595	26506	3.69	5.0E-43	AA382780.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C013
2891	15945	28846	1.9	5.0E-43	AV732578.1	EST_HUMAN	EST196033 Testis 1 Homo sapiens cDNA 5' end
6560	20140	33379	0.96	5.0E-43	AI613509.1	EST_HUMAN	AV732578 HTF Homo sapiens cDNA clone HTFANC06 5'
7231	20140	33379	0.84	5.0E-43	AI613509.1	EST_HUMAN	tw22e07.x1 NCI CGAP_Bm52 Homo sapiens cDNA clone IMAGE:2260452 3'
8765	21695	35037	0.67	5.0E-43	AA442271.1	EST_HUMAN	tw22e07.x1 NCI CGAP_Bm52 Homo sapiens cDNA clone IMAGE:2260452 3'
8765	21695	35038	0.67	5.0E-43	AA442271.1	EST_HUMAN	zr54a03.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757420 5'
8765	21695	35038	0.67	5.0E-43	AA442271.1	EST_HUMAN	zv54a03.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757420 5'

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Table 4

Single Exon Probes Expressed In Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
9436	22364		0.8	5.0E-43	H74277.1	EST_HUMAN	y449g12.1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:229510 5'
9902	22890	36274	4.55	5.0E-43	AA465288.1	EST_HUMAN	aa33cd08.r1 NCI_CGAP_GCBT Homo sapiens cDNA clone IMAGE:815055 5'
10883	23763	37193	2.79	5.0E-43	AI733244.1	EST_HUMAN	0652c10.x5 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1569810 3' similar to TR:P00591 P00591 PV14 GENE.
10917	23802	37230	1.14	5.0E-43	AL049110.1	EST_HUMAN	DKFZp434D0119_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434D0119
11202	24128	37575	5.3	5.0E-43	AIW863007.1	EST_HUMAN	MR2-SN0007-290400-004-c02 SN0007 Homo sapiens cDNA
999	15847	26992	3.43	4.0E-43	AF003528.1	NT	Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions
5440	18522	31247	1.13	4.0E-43	AI056338.1	EST_HUMAN	oy47h03.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:1668013 3'
6829	19669	32854	0.76	4.0E-43	6986003	NT	Homo sapiens glycy-tRNA synthetase (GARS), mRNA
7490	20430		2.01	4.0E-43	11416793	NT	Homo sapiens protocadherin beta 8 (PCDH8), mRNA
8756	21683	35028	6.4	4.0E-43	AI244341.1	EST_HUMAN	q176a02.x1 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1865354 3' similar to contains MER10.13 MER10 repetitive element
8756	21683	35030	6.4	4.0E-43	AI244341.1	EST_HUMAN	q176a02.x1 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1865354 3' similar to contains MER10.13 MER10 repetitive element
10804	23690	37118	1.48	4.0E-43	6005967	NT	Homo sapiens zinc finger protein 161 (ZNF161), mRNA
12384	25192		3.73	4.0E-43	R20950.1	EST_HUMAN	yq06b05.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:31363 5' similar to contains MER10 repetitive element
1241	14277		2.83	3.0E-43	AF223391.1	NT	Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced
1721	14749	27717	0.96	3.0E-43	X97869.1	NT	H. sapiens gene encoding La autbentigen
3632	16688	28585	1.58	3.0E-43	S69002.1	NT	AML1-EVI-1=AML1-EVI-1 fusion protein (rearranged translocation) [human, leukemic cell line SKH1, mRNA Mutant, 5938 nt]
4390	17404	30272	0.96	3.0E-43	AA548154.1	EST_HUMAN	rk55d06.s1 NCI_CGAP_P77 Homo sapiens cDNA clone IMAGE:1017419
5535	18614	31463	0.5	3.0E-43	M59259.1	NT	Human carcinoembryonic antigen (CEA) gene, exon 6
5535	18614	31464	0.5	3.0E-43	M59259.1	NT	Human carcinoembryonic antigen (CEA) gene, exon 6
6111	19171	32303	0.79	3.0E-43	D34813.1	NT	Human TBXAS1 gene for thromboxane synthase, promoter region and exon 1
6618	19657	32840	1.94	3.0E-43	7305360	NT	Mus musculus otogelin (Otog), mRNA
6618	19657	32841	1.94	3.0E-43	7305360	NT	Mus musculus otogelin (Otog), mRNA
7030	20036	33289	4.08	3.0E-43	U65487.1	NT	Human ribosomal RNA upstream binding transcription factor (UBTF) gene, partial cds
8741	21671		5.67	3.0E-43	AA458824.1	EST_HUMAN	aa8811.s1 Striatogene fetal retina 937202 Homo sapiens cDNA clone IMAGE:838413 3' similar to contains THR12 THR repetitive element
9379	22307	35686	0.82	3.0E-43	7661721	NT	Homo sapiens hypothetical protein (HSA011616), mRNA

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
105	13293		9.69	2.0E-43	AI190764.1	EST_HUMAN	q61c09.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1733988 3' similar to contains PTR7.13 PTR7 PTR7 repetitive element;
6749	10783	32905	1.03	2.0E-43	BE222778.1	EST_HUMAN	hu53a08.x1 NCI_CGAP_Brn41 Homo sapiens cDNA clone IMAGE:3173750 3' similar to contains element MER40 repetitive element;
6749	19783	32906	1.03	2.0E-43	BE222778.1	EST_HUMAN	hu53a08.x1 NCI_CGAP_Brn41 Homo sapiens cDNA clone IMAGE:3173750 3' similar to contains element MER40 repetitive element;
7652	20593	33892	1.13	2.0E-43	AW207390.1	EST_HUMAN	UI-H-B11-ait-a-09-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2721712 3'
8893	21813		7.74	2.0E-43	U43701.1	NT	Human ribosomal protein L23a mRNA, complete cds
11846	24551		3.5	2.0E-43	T03007.1	EST_HUMAN	FBTG5 Fetal brain, Stratiogene Homo sapiens cDNA clone FB1G5 3'end similar to LINE-1
1676	14708	27668	3.36	1.0E-43	AF154836.1	NT	Homo sapiens Ras-like GTP-binding protein (RAB27A) gene, exons 1b and 2
1676	14709	27699	3.36	1.0E-43	AF154836.1	NT	Homo sapiens Ras-like GTP-binding protein (RAB27A) gene, exons 1b and 2
1732	14759	27730	3.31	1.0E-43	AL103284.2	NT	Homo sapiens chromosome 21 segment HS21C084
2771	15763	28755	4.57	1.0E-43	BF348283.1	EST_HUMAN	60202313F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4157666 5'
5595	18671	31550	0.64	1.0E-43	4885544	NT	Homo sapiens pyruvate dehydrogenase kinase, isoenzyme 3 (PDK3) mRNA
8896	19928	33141	9.3	1.0E-43	4507168	NT	Homo sapiens Sp4 transcription factor (SP4) mRNA
8896	19928	33142	9.3	1.0E-43	4507168	NT	Homo sapiens Sp4 transcription factor (SP4) mRNA
7304	18473	31294	1.42	1.0E-43	R19751.1	EST_HUMAN	Yg40a01.r1 Soares Infant brain 1N1B Homo sapiens cDNA clone IMAGE:34732 5' similar to SP-BD38_MOUSE P28656 BRAIN PROTEIN DN38 ;
8511	21442	34784	0.76	1.0E-43	AF175265.1	NT	Homo sapiens vacuolar sorting protein 35 (VPS35) mRNA, complete cds
8843	21574		2.98	1.0E-43	AF198490.1	NT	Homo sapiens 8q22.1 region and MTG8 (CBFA2T1) gene, partial cds
9395	22323	35686	31.07	1.0E-43	AW663678.1	EST_HUMAN	EST375749 IMAGE resequences, MAGH Homo sapiens cDNA
10781	23667	37096	0.65	1.0E-43	AW953229.1	EST_HUMAN	EST365299 IMAGE resequences, MAGH Homo sapiens cDNA
11401	24317	37764	7.46	1.0E-43	AI984961.1	EST_HUMAN	wr67h01.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2404705 3'
11804	24725	38217	4.22	1.0E-43	11424378	NT	Homo sapiens calcium channel, voltage-dependent, alpha 1E subunit (CACNA1E), mRNA
12331	25129		2.53	1.0E-43	AL137964.1	EST_HUMAN	DKF2p761D1015_r1 761 (synonym: hamy2) Homo sapiens cDNA clone IMAGE:2313775 3'
12594	25290	31843	4.37	1.0E-43	AI675416.1	EST_HUMAN	wb99b04.x1 NCI_CGAP_Prb28 Homo sapiens cDNA clone IMAGE:2313775 3'
12799	25425	31794	2.19	9.0E-44	11418922	NT	Homo sapiens cadherin EGF LAG seven-pass G-type receptor 1 (GELSR1), mRNA
915	13987	26914	7.98	8.0E-44	AI222985.1	EST_HUMAN	qh23g01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1845552 3'
915	13987	26915	7.98	8.0E-44	AI222985.1	EST_HUMAN	qh23g01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1845552 3'
9103	22031	35386	1.34	8.0E-44	X94354.1	NT	H. sapiens DNA for Cone cGMP-PDE gene
11350	24268	37710	1.67	8.0E-44	11423553	NT	Homo sapiens similar to phosphotransferase i (H. sapiens) (LOC83246), mRNA
11605	24514	37883	4.61	8.0E-44	Y10498.2	NT	Homo sapiens mRNA for thymidine kinase, partial
12112	24953	38457	1.43	8.0E-44	IL29139.1	NT	Homo sapiens myosin mRNA, partial cds
12553	25268	31838	2.48	8.0E-44	11827389	NT	Homo sapiens polymerase (RNA) II (DNA directed) polypeptide F (POLR2F), mRNA

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Table 4  
Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
12588	25582	31739	1.51	8.0E-44	11418086	NT	Homo sapiens putative nuclear protein (HRIHFB2122), mRNA
12615	25753	31570	1.67	8.0E-44	11418089	NT	Homo sapiens protein kinase C, alpha binding protein (PRKCABP), mRNA
682	13744		0.88	7.0E-44	R06035.1	EST_HUMAN	ye39601.11 Soares fetal liver spleen 1N1LS Homo sapiens cDNA clone IMAGE:124920 5'
2249	15259	28267	2.15	7.0E-44	5031888	NT	Homo sapiens LIM domain-containing preferred translocation partner in lipoma (LPP) mRNA
3007	16059	28962	2.27	7.0E-44	AF048729.1	NT	Homo sapiens minisatellite ms32 repeat region
3007	16059	28963	2.27	7.0E-44	AF048729.1	NT	Homo sapiens minisatellite ms32 repeat region
3929	16957	28840	3.77	7.0E-44	AL163284.2	NT	Homo sapiens chromosome 21 segment HS21C084
4340	17354	30217	1.04	7.0E-44	AF231919.1	NT	Homo sapiens chromosome 21 unknown mRNA
4340	17354	30218	1.04	7.0E-44	AF231919.1	NT	Homo sapiens chromosome 21 unknown mRNA
8763	21683	35035	3.71	7.0E-44	AU159339.1	EST_HUMAN	AU159339 Y79AA1 Homo sapiens cDNA clone Y79AA1000496 3'
6341	19391	32560	0.73	6.0E-44	Z20946.1	EST_HUMAN	HSAAADEYU P, Human foetal Brain Whole tissue Homo sapiens cDNA
12189	26025	38525	1.7	6.0E-44	AW954050.1	EST_HUMAN	EST368120 IMAGE rescues, MAGC Homo sapiens cDNA
323	13415		2.68	5.0E-44	AJ289880.1	NT	Homo sapiens KIAA0851 gene (partial), X13 gene and LZTFL1 gene
352	13439		2.24	5.0E-44	AJ289880.1	NT	Homo sapiens KIAA0851 gene (partial), X13 gene and LZTFL1 gene
8468	21399	34739	4.5	5.0E-44	AI568523.1	EST_HUMAN	tr40402.x1 NCI_CGAP_Brm25 Homo sapiens cDNA clone IMAGE:2170083 3' similar to contains OFR.h
9921	22609		1.7	5.0E-44	AU124571.1	EST_HUMAN	OFR OFR repetitive element
3475	16515	29414	2.37	4.0E-44	AL163303.2	NT	AU124571 NT2RM4 Homo sapiens cDNA clone NT2RM4000218 5'
3871	19900		0.92	4.0E-44	BE165990.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C103
5140	18135		1.89	4.0E-44	AI435225.1	EST_HUMAN	MR3-HT0487-T50200-113-g01 HT0487 Homo sapiens cDNA
7890	20816	34122	0.62	4.0E-44	BE883178.1	EST_HUMAN	U11d02.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2130147 3'
8847	21777	35124	0.82	4.0E-44	L21948.1	NT	601508601F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3910152 5'
9435	22363		0.6	4.0E-44	BE176618.1	EST_HUMAN	Human fibrillin (FBN1) locus polymorphism
11885	24588	38086	12.08	4.0E-44	U90878.1	NT	RC3-HT0585-010400-023-008 HT0585 Homo sapiens cDNA
2559	15558	28558	1.3	3.0E-44	BE890626.1	EST_HUMAN	Homo sapiens carboxyl terminal LIM domain protein (CLIM1) mRNA, complete cds
3145	16195	29088	7.34	3.0E-44	AA169851.1	EST_HUMAN	601491529F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3893839 5'
3960	16988	28874	2.48	3.0E-44	AA337234.1	EST_HUMAN	zp18b05.r1 Stragone fetal retina 937202 Homo sapiens cDNA clone IMAGE:603777 5'
8268	21173	34508	0.6	3.0E-44	BE894820.1	EST_HUMAN	EST42289 Endometrial tumor Homo sapiens cDNA 5' end similar to similar to alpha-1-antitrypsinase F
10049	22965	36354	0.95	3.0E-44	AF005273.1	NT	601510547F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912010 5'
1075	14119	27056	1.99	2.0E-44	4820685	NT	Sus scrofa domestica subaxillary apomucin mRNA, complete cds
1075	14119	27057	1.99	2.0E-44	4820685	NT	Homo sapiens DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 1 (DDX1) mRNA
1235	14271	27214	4.6	2.0E-44	5803200	NT	Homo sapiens DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 1 (DDX1) mRNA
1235	14271	27215	4.6	2.0E-44	5803200	NT	Homo sapiens transmembrane trafficking protein (TMP21), mRNA
1235	14271	27215	4.6	2.0E-44	5803200	NT	Homo sapiens transmembrane trafficking protein (TMP21), mRNA



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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1338	14371	27323	2.45	2.0E-44	AF133588.1	NT	Homo sapiens RAB38 (RAB38) mRNA, complete cds
1395	14426	27380	1.25	2.0E-44	BE485325.1	EST_HUMAN	hw14g06.xt NCI CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3182938 3' similar to SW:OXYB_HUMAN
2166	15178	28184	1.68	2.0E-44	AF070851.1	NT	P22059 OXYSTEROL-BINDING PROTEIN ;
2570	15568		1.85	2.0E-44	4507592	NT	Homo sapiens tissue-type bone marrow zinc finger protein 4 mRNA, complete cds
2612	15810	28605	1.59	2.0E-44	D25303.1	NT	Homo sapiens tumor necrosis factor (ligand) superfamily, member 10 (TNFSF10) mRNA
2653	15848		1.05	2.0E-44	5901933	NT	Human mRNA for integrin alpha subunit, complete cds
4685	17650	30557	1.83	2.0E-44	AW884379.1	EST_HUMAN	Homo sapiens adaptor-related protein complex 4, sigma 1 subunit (CLAPS4), mRNA
4901	17900	30767	1.07	2.0E-44	7706128	NT	FM4-SN0016-120500-003-a04 SN0016 Homo sapiens cDNA
4901	17900	30768	1.07	2.0E-44	7706128	NT	Homo sapiens oxysterol 7alpha-hydroxylase (CYP39A1), mRNA
6332	18382	32550	1.53	2.0E-44	11449901	NT	Homo sapiens oxysterol 7alpha-hydroxylase (CYP39A1), mRNA
7178	18450	31319	1.12	2.0E-44	AF038968.1	NT	Homo sapiens chemokine (C-C motif) receptor 9 (CCR9), mRNA
7814	20743	34047	3.51	2.0E-44	11419226	NT	Homo sapiens general transcription factor 2-1 (GTF2I) mRNA, alternatively spliced product, complete cds
7814	20743	34048	3.51	2.0E-44	11419226	NT	Homo sapiens glutamate receptor, metabotropic 3 (GRM3), mRNA
8998	21927	35281	0.82	2.0E-44	7706370	NT	Homo sapiens glutamate receptor, metabotropic 3 (GRM3), mRNA
8998	21927	35282	0.82	2.0E-44	7706370	NT	Homo sapiens vesicle transport-related protein (KIAA0917), mRNA
8178	22106	35484	1.61	2.0E-44	BE389058.1	EST_HUMAN	Homo sapiens vesicle transport-related protein (KIAA0917), mRNA
12243	25067		3.54	2.0E-44	BE244902.1	EST_HUMAN	601286914F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3813586 5'
65	13172	26071	4.62	1.0E-44	7657334	NT	TCBAP1E2795 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP2795
55	13172	26072	4.62	1.0E-44	7657334	NT	Homo sapiens Misshapen/NIK-related kinase (MINK), mRNA
602	13668	26571	2.93	1.0E-44	AW853132.1	EST_HUMAN	Homo sapiens Misshapen/NIK-related kinase (MINK), mRNA
1225	14282		1.53	1.0E-44	AW994803.1	EST_HUMAN	RC1-CT0249-030300-026-h12 CT0249 Homo sapiens cDNA
1595	14626		7.72	1.0E-44	AL183303.2	NT	RC1-BN0039-110300-012-501 BN0039 Homo sapiens cDNA
2237	15247	28253	5.03	1.0E-44	AA434554.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C103
2237	15247	28254	5.03	1.0E-44	AA434554.1	EST_HUMAN	zw53d02.r1 Soares_total Tetus Nb2HF8 Gw Homo sapiens cDNA clone IMAGE:773763 5' similar to contains THR t3 THR repetitive element ;
2810	15789	28798	2.11	1.0E-44	AF196779.1	NT	zw53d02.r1 Soares_total Tetus Nb2HF8 Gw Homo sapiens cDNA clone IMAGE:773763 5' similar to contains THR t3 THR repetitive element ;
3789	16820		2.83	1.0E-44	AA455869.1	EST_HUMAN	Homo sapiens transcription factor IQH1M enhancer 3, JM11 protein, JM4 protein, JM5 protein, T54 protein, JN110 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophysin genes, complete cds; and L-type calcium channel a2
8941	21771	35117	1.02	1.0E-44	AW967073.1	EST_HUMAN	aa01cd09.s1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:811984 3'
							EST379147 IMAGE resequences, MAGJ Homo sapiens cDNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8841	21771	35118	1.02	1.0E-44	AW967073.1	EST_HUMAN	EST378147 MAGE resequences, MAGJ Homo sapiens cDNA
9206	22134	35491	0.93	1.0E-41	AL163209.2	NT	Homo sapiens chromosome 21 segment HS21C009
9577	22504	35868	0.89	1.0E-44	AI337183.1	EST_HUMAN	qx86g07.x1 NCL CGAP_GC8 Homo sapiens cDNA clone IMAGE:2009628 3'
11482	24368		3.65	1.0E-44	AV714608.1	EST_HUMAN	AV714608 DGB Homo sapiens cDNA clone DGBBYE03 5'
11981	24804	38303	4.28	1.0E-44	10092684	NT	Homo sapiens Sushi domain (SCR repeat) containing (BK65A6.2), mRNA
12020	24862	38362	2.2	1.0E-44	AW846987.1	EST_HUMAN	RC1-CT0198-150999-011-C08 CT0198 Homo sapiens cDNA
12020	24862	38363	2.2	1.0E-44	AW846987.1	EST_HUMAN	RC1-CT0198-150999-011-C08 CT0198 Homo sapiens cDNA
5941	19970	33183	1.28	9.0E-45	AB023212.1	NT	Homo sapiens mRNA for KIAA0395 protein, partial cds
2551	15551	28549	3.7	8.0E-45	5174718	NT	Homo sapiens TRK-fused gene (NOTE: non-standard symbol and name) (TFG) mRNA
5217	18207	31052	10.51	8.0E-45	5174718	NT	Homo sapiens TRK-fused gene (NOTE: non-standard symbol and name) (TFG) mRNA
6784	19817	33029	0.4	8.0E-45	AW892783.1	EST_HUMAN	CMQ-NN0005-130300-283-b09 NN0005 Homo sapiens cDNA
8885	21616	34959	0.92	8.0E-45	AA377985.1	EST_HUMAN	EST90883 Synovial sarcoma Homo sapiens cDNA 5' end
1575	14605		1.15	6.0E-45	AI675425.1	EST_HUMAN	w699c06.x1 NCL CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2313802 3' similar to contains L1.t1 L1 repetitive element;
4063	17089		1.03	6.0E-45	AW157570.1	EST_HUMAN	au83p07.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782809 3' similar to SW:R13A_HUMAN P40429 60S RIBOSOMAL PROTEIN L13A;
12884	25924		1.51	6.0E-45	11418213	NT	Homo sapiens ADP-ribosylation factor GTPase activating protein 1 (ARFGAP1), mRNA
617	13969		0.95	5.0E-45	AL163203.2	NT	Homo sapiens chromosome 21 segment HS21C003
2018	15038	28030	3.85	5.0E-45	BF333627.1	EST_HUMAN	GM4-CN0044-180200-515-01 CN0044 Homo sapiens cDNA
3256	16304	29210	2.68	5.0E-45	AI523768.1	EST_HUMAN	tg94i07.x1 NCL CGAP_GLL1 Homo sapiens cDNA clone IMAGE:2116453 3' similar to SW:PAX1_MOUSE P08084 PAIRED BOX PROTEIN PAX-1;
5702	18775	31703	8.55	5.0E-45	AA397781.1	EST_HUMAN	z172d03.a1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:727877 3' similar to contains element TAR1 repetitive element;
6252	18305	32487	1.25	5.0E-45	Y18933.1	NT	Homo sapiens MCP-1 gene and enhancer region
6252	19305	32488	1.25	5.0E-45	Y18933.1	NT	Homo sapiens MCP-1 gene and enhancer region
6300	19351	32519	0.95	5.0E-45	AB022318.1	NT	Homo sapiens mRNA for inducible nitric oxide synthase, complete cds
6300	19351	32520	0.95	5.0E-45	AB022318.1	NT	Homo sapiens mRNA for inducible nitric oxide synthase, complete cds
6430	19477	32653	1.15	5.0E-45	11498268	NT	Homo sapiens zinc finger protein 277 (ZNF277), mRNA
6430	19477	32654	1.15	5.0E-45	11498268	NT	Homo sapiens zinc finger protein 277 (ZNF277), mRNA
8852	21782	35129	0.82	5.0E-45	11418704	NT	Homo sapiens bone morphogenetic protein 5 (BMP5), mRNA
9593	22519	35882	1.81	5.0E-45	4759223	NT	Homo sapiens programmed cell death 5 (PDCD5), mRNA
12119	24960	39493	2.67	5.0E-46	8923698	NT	Homo sapiens golgin-like protein (GLP), mRNA
1171	14211	27148	7.57	4.0E-45	X89826.1	NT	H. sapiens ART4 gene
2310	15318	28319	2.48	4.0E-45	BE265622.1	EST_HUMAN	601194440F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3638425 5'

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4628	17634	30498	0.68	4.0E-45	4789249	NT	Homo sapiens TRAF family member-associated NFKB activator (TANK) mRNA
9511	22438		0.98	4.0E-45	AA226220.1	EST_HUMAN	nc28e07.e1 NCI_CGAP_P1 Homo sapiens cDNA clone IMAGE:1009284 similar to contains element L1 repetitive element;
3379	16422		1.33	3.0E-45	T71480.1	EST_HUMAN	yc35107.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:110245 5'
1776	16422		1.17	3.0E-45	T71480.1	EST_HUMAN	yc35107.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:110245 5'
6484	19529	32707	1.24	3.0E-45	6763651	NT	Mus musculus dynein, axon, heavy chain 11 (Dnaht11), mRNA
6484	19529	32708	1.24	3.0E-45	6763651	NT	Mus musculus dynein, axon, heavy chain 11 (Dnaht11), mRNA
9019	21948		1.85	3.0E-45	AV723976.1	EST_HUMAN	AV723976 HTB Homo sapiens cDNA clone HTBAAG01 5'
9349	22277	35639	3.43	3.0E-45	4798451	NT	Homo sapiens golgi autoantigen, golgin subfamily a, 2 (GOLGA2) mRNA
10797	23683	37111	13.79	3.0E-45	AL163227.2	NT	Homo sapiens chromosome 21 segment HS21C027
10787	23683	37112	13.79	3.0E-45	AL163227.2	NT	Homo sapiens chromosome 21 segment HS21C027
12992	25868		2.28	3.0E-45	X89211.1	NT	H. sapiens DNA for endogenous retroviral like element
2326	15527		3.49	2.0E-45	AL163218.2	NT	Homo sapiens chromosome 21 segment HS21C018
3079	18130	28026	0.9	2.0E-45	AJ243213.1	NT	Homo sapiens partial 5-HT4 receptor, gene, exons 2 to 5
6800	19833	33044	5.42	2.0E-45	L01665.1	NT	Human eosinophil Charcot-Leyden crystal (CLC) protein (lysophospholipase) gene, promoter and exon 1
8054	20967	34282	1.35	2.0E-45	BE782184.1	EST_HUMAN	601487793F1 NIH_MGC_97 Homo sapiens cDNA clone IMAGE:3870838 5'
8986	21916	36271	0.9	2.0E-45	AW834834.1	EST_HUMAN	RC0-L T0001-150200-032-d11 LT0001 Homo sapiens cDNA
11242	25697	37614	8.63	2.0E-45	BE934350.1	EST_HUMAN	MRO-HT0923-190800-201-g02 HT0923 Homo sapiens cDNA
11610	24528	37695	3.41	2.0E-45	AA458770.1	EST_HUMAN	ae87f12.r1 Striatagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:388319 5' similar to TR:G1144569 G1144569 R-SLY1.1
11937	24781	38277	1.76	2.0E-45	AW270280.1	EST_HUMAN	xp72a03.x1 NCI_CGAP_Ov40 Homo sapiens cDNA clone IMAGE:2745868 3'
11937	24781	38278	1.76	2.0E-45	AW270280.1	EST_HUMAN	xp72a03.x1 NCI_CGAP_Ov40 Homo sapiens cDNA clone IMAGE:2745868 3'
13022	25565		4.02	2.0E-45	11418197	NT	Homo sapiens calcium channel, voltage-dependent, alpha 1I subunit (CACNA1I), mRNA
128	13503		1.78	1.0E-45	BE388855.1	EST_HUMAN	601284360F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3606183 5'
432	13503		2.04	1.0E-45	BE388855.1	EST_HUMAN	601284360F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3606183 5'
495	13565	26484	0.97	1.0E-45	4506412	NT	Homo sapiens RAP1A, member of RAS oncogene family (RAP1A), mRNA
1202	14241	27182	1.62	1.0E-45	7657290	NT	Homo sapiens Langerhans cell specific c-type lectin (LANGERIN), mRNA
3150	16200	29092	10.58	1.0E-45	U32169.1	NT	Human pro-a2 chain of collagen type XI (COL11A2) gene, complete cds
3351	16589	29495	0.91	1.0E-45	8659558	NT	Homo sapiens chromosome 21 open reading frame 1 (C21orf4), mRNA
3334	16670	29567	0.79	1.0E-45	AB046811.1	NT	Homo sapiens mRNA for KIAA1591 protein, partial cds
4590	17698	30466	7.63	1.0E-45	BE388855.1	EST_HUMAN	601289116F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3619803 5'
4839	17840		1.36	1.0E-45	H57443.1	EST_HUMAN	yr05b02.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:204953 5'
8609	21540	34881	0.75	1.0E-45	11422236	NT	Homo sapiens peroxisomal biogenesis factor 14 (PEX14), mRNA

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Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8609	21540	34882	0.75	1.0E-46	11422236	NT	Homo sapiens peroxisomal biogenesis factor 14 (PEX14), mRNA
9168	22096	35456	0.95	1.0E-45	D87675.1	NT	Homo sapiens DNA for amyloid precursor protein, complete cds
9665	22591	35984	4.71	1.0E-45	BE887843.1	EST_HUMAN	601611226F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912535 5'
10052	22958	36357	0.99	1.0E-45	AB002297.1	NT	Human mRNA for KIAA0299 gene, partial cds
12435	25193	31880	3.16	1.0E-45	11418099	NT	Homo sapiens protein kinase C, alpha binding protein (PRKCAP), mRNA
12603	25299		10.13	1.0E-45	11526291	NT	Homo sapiens hypothetical protein FLJ20454 (FLJ20454), mRNA
12808	25302		4.79	1.0E-45	11418177	NT	Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA
12997	25550	31755	3.18	1.0E-45	11418157	NT	Homo sapiens calcium channel, voltage-dependent, alpha 1I subunit (CACNA1I), mRNA
8806	21736	35086	1.96	9.0E-46	9910293	NT	Mus musculus keratin complex 2, gene 6g (Krt2-6g), mRNA
9193	22121		8.32	9.0E-46	AL163209.2	NT	Homo sapiens chromosome 21 segment HS21C009
10958	23842	37268	8.76	9.0E-46	AW246964.1	EST_HUMAN	2822449.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2132169 3' similar to gb:J00314_ma2
2466	15469	28468	0.19	8.0E-46	AI433261.1	EST_HUMAN	TUBULIN BETA-1 CHAIN (HUMAN);
2466	15469	28469	6.19	8.0E-46	AI433261.1	EST_HUMAN	TUBULIN BETA-1 CHAIN (HUMAN);
8632	21583		3.52	8.0E-46	BE167244.1	EST_HUMAN	RC5-HT0506-280200-012-C12 HT0506 Homo sapiens cDNA
4694	17699		1.67	7.0E-46	BE386165.1	EST_HUMAN	601277292F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3618119 5'
4821	17920		1.05	7.0E-46	BE084386.1	EST_HUMAN	RC4-BT0310-110300-015-f10 BT0310 Homo sapiens cDNA
6277	18328	32494	5.01	7.0E-46	8922708	NT	Homo sapiens hypothetical protein FLJ10847 (FLJ10847), mRNA
6770	19804	33015	2.69	7.0E-46	BF105845.1	EST_HUMAN	601822895F1 NIH_MGC_77 Homo sapiens cDNA clone IMAGE:4042736 5'
12731	25373		1.73	7.0E-46	AL163246.2	NT	Homo sapiens chromosome 21 segment HS21C046
2803	15792	28791	6.23	6.0E-46	AI884381.1	EST_HUMAN	wm31108.x1 NCI_CGAP_U14 Homo sapiens cDNA clone IMAGE:2437575 3' similar to contains MER19.12
2803	15792	28792	6.23	6.0E-46	AI884381.1	EST_HUMAN	MER19 repetitive element ;
5190	18192		0.79	6.0E-46	BE535440.1	EST_HUMAN	wm31108.x1 NCI_CGAP_U14 Homo sapiens cDNA clone IMAGE:2437575 3' similar to contains MER19.12
6369	19418	32584	10.85	6.0E-46	AI635448.1	EST_HUMAN	MER19 repetitive element ;
7585	20521	33008	0.85	6.0E-46	AW513244.1	EST_HUMAN	601058602F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3445177 5'
7776	20708	34008	0.41	6.0E-46	BF509740.1	EST_HUMAN	1558h10.x1 NCI_CGAP_Kid8 Homo sapiens cDNA clone IMAGE:2232835 3' similar to TR:O60363 O60363
11828	23963		2.25	6.0E-46	BE784971.1	EST_HUMAN	SA GENE ;
217	13316		5.9	5.0E-46	AL163210.2	NT	xc42a04.x1 NCI_CGAP_U11 Homo sapiens cDNA clone IMAGE:2705654 3' similar to gb:U08069 DNAAJ
3590	16627	28530	1.56	5.0E-46	BE677194.1	EST_HUMAN	PROTEIN HOMOLOG 2 (HUMAN);
							UIH-B14-epg-b-06-0-U1.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3087298 3'
							601478409F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3880995 5'
							Homo sapiens chromosome 21 segment HS21C010
							7d81g01.x1 Lupski_dorsal_Homo sapiens cDNA clone IMAGE:3279408 3'

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3590	16627	29531	1.56	5.0E-46	BE677194.1	EST_HUMAN	7481g01.x1 Lupskl_dorsal_roof_ganglion Homo sapiens cDNA clone IMAGE:3279408 3'
7039	20095	33298	1.7	5.0E-46	BF590442.1	EST_HUMAN	naa3807.x1 NCL CGAP_Kd11 Homo sapiens cDNA clone IMAGE:3258757 3' similar to TR:075202
7272	20225	33473	4.46	5.0E-46	BF347229.1	EST_HUMAN	O76202 HOMOLOG OF RAT KIDNEY-SPECIFIC ;
7454	20394	33665	0.78	5.0E-46	AW582253.1	EST_HUMAN	G02021164F1 NCL CGAP_Bm67 Homo sapiens cDNA clone IMAGE:4156670 5'
7781	20710	34013	0.48	5.0E-46	BE549744.1	EST_HUMAN	QV4-ST0212-120100-075-09 ST0212 Homo sapiens cDNA
664	13726		1.5	4.0E-46	AA601143.1	EST_HUMAN	7c38a05.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3230481 3'
1731	14758	27728	2.74	4.0E-46	AW770544.1	EST_HUMAN	no54e09.s1 NCL CGAP_SS1 Homo sapiens cDNA clone IMAGE:1104520 3' similar to gb:X53741_ma1 FIBULIN-1, ISOFORM A PRECURSOR (HUMAN);
1731	14758	27728	2.74	4.0E-46	AW770544.1	EST_HUMAN	h186c03.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3008836 3' similar to gb:X14008_ma1 LYSOZYME C PRECURSOR (HUMAN);contains element MER37 repetitive element ;
1731	14758	27728	2.74	4.0E-46	AW770544.1	EST_HUMAN	h186c03.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3008836 3' similar to gb:X14008_ma1 LYSOZYME C PRECURSOR (HUMAN);contains element MER37 repetitive element ;
2788	15778	28774	0.51	4.0E-46	M18048.1	NT	Human endogenous retrovirus RTVL-H2
4525	17534	30396	1.19	4.0E-46	AB014522.1	NT	Homo sapiens mRNA for KIAA0822 protein, partial cds
4525	17534	30397	1.19	4.0E-46	AB014522.1	NT	Homo sapiens mRNA for KIAA0822 protein, partial cds
5292	18277	31128	0.66	4.0E-46	BE044260.1	EST_HUMAN	h042a07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:3040020 3'
5292	18277	31127	0.66	4.0E-46	BE044260.1	EST_HUMAN	h042a07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:3040020 3'
5622	18699	31599	3.17	4.0E-46	M36852.1	NT	Human Ig germline gamma-3 heavy-chain gene V region, partial cds
5622	18699	31599	3.17	4.0E-46	M36852.1	NT	Human Ig germline gamma-3 heavy-chain gene V region, partial cds
2453	15457	28454	1.46	3.0E-46	AF160212.1	NT	Homo sapiens VAMP-associated 33 kDa protein mRNA, complete cds
9309	22237	35599	12.37	3.0E-46	AI831462.1	EST_HUMAN	w149c04.x1 NCL CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2408150 3' similar to contains THR.b2 THR repetitive element ;
12004	24846	38343	2.23	3.0E-46	D31765.1	NT	Human mRNA for KIAA0061 gene, partial cds
882	13916	28860	7.03	2.0E-46	AA468646.1	EST_HUMAN	ne06a09.s1 NCL CGAP_Co3 Homo sapiens cDNA clone IMAGE:880408 3' similar to contains THR.b2 THR repetitive element ;
1582	14613		3.73	2.0E-46	AA678246.1	EST_HUMAN	z127a11.s1 Soares_fetal_liver_spleen_NFLS_S1 Homo sapiens cDNA clone IMAGE:431998 3'
1007	14697	27657	6.29	2.0E-46	U78027.1	NT	Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds
5095	18092	30940	1.72	2.0E-46	AA399266.1	EST_HUMAN	z158e02.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:726650 5' similar to SW:RSP1_MOUSE Q01730 RSP-1 PROTEIN ;
7904	20829	34132	7.26	2.0E-46	9510569	NT	Mus musculus sperm tail associated protein (Slap), mRNA
8647	21578		1.84	2.0E-46	BE869151.1	EST_HUMAN	601445137F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3849297 5'

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
12633	25314		1.88	2.0E-46	AA001786.1	EST_HUMAN	zh84f12.r1 Soares_fetal_liver_spleen_TNFRSF_51 Homo sapiens cDNA clone IMAGE:428015 5'
12604	25740	31670	4.32	2.0E-48	AW277214.1	EST_HUMAN	xq78h03.x1 NCL_CGAP_Lu34 Homo sapiens cDNA clone IMAGE:2766789 3'
1261	14295	27241	4.49	1.0E-46	4502684	NT	Homo sapiens cell division cycle 10 (homologous to CDC10 of S. cerevisiae) (CDC10) mRNA
1594	14625	27585	0.98	1.0E-46	7662177	NT	Homo sapiens KIAA0555 gene product (KIAA0555), mRNA
1594	14625	27588	0.98	1.0E-46	7662177	NT	Homo sapiens KIAA0555 gene product (KIAA0555), mRNA
2301	15303	28315	4.24	1.0E-46	AW978516.1	EST_HUMAN	EST390623 IMAGE resequencing, MAGF Homo sapiens cDNA
2422	15423	28427	5.47	1.0E-46	H97330.1	EST_HUMAN	EST480095 WATM1 Homo sapiens cDNA clone 480095
3294	16341	29243	7.22	1.0E-46	AA631912.1	EST_HUMAN	np78p02.e1 NCL_CGAP_P12 Homo sapiens cDNA clone IMAGE:1132395 similar to gb:X76717 H.sapiens
4981	17979		3.75	1.0E-46	AB023197.1	NT	MT-11 mRNA, (HUMAN);
5898	18987	32085	7.4	1.0E-46	BF194707.1	EST_HUMAN	Homo sapiens mRNA for KIAA0980 protein, partial cds
6206	25643	32410	5.23	1.0E-46	8923762	NT	7682b01.x1 NCL_CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3643705 3'
6206	25643	32411	5.23	1.0E-46	8923762	NT	Homo sapiens centaurin-alpha 2 protein (HSA272195), mRNA
6898	18928	33145	0.55	1.0E-46	BF198247.1	EST_HUMAN	Homo sapiens centaurin-alpha 2 protein (HSA272195), mRNA
11297	18967	32085	4.47	1.0E-46	BF194707.1	EST_HUMAN	7n48e07.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3567852 3' similar to contains element
792	13847		4.57	9.0E-47	AJ271735.1	NT	MER22 repetitive element ;
5043	18040	30896	2.89	9.0E-47	AW770928.1	EST_HUMAN	7682b01.x1 NCL_CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3643705 3'
6637	19677	32865	0.84	9.0E-47	11425439	NT	Homo sapiens Xq pseudautosomal region, segment 1/2
12857	25828	31488	3.56	9.0E-47	11417866	NT	HYPOTHETICAL 12.4 KD PROTEIN. ;
1830	14853	27831	20.02	8.0E-47	Y18536.1	NT	Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA
1830	14853	27832	20.02	8.0E-47	Y18536.1	NT	Homo sapiens HLA-C gene, exon 5, individual 19323
2765	15757	28752	1.39	8.0E-47	5453955	NT	Homo sapiens HLA-C gene, exon 5, individual 19323
3069	16121	29022	2.41	8.0E-47	AJ229043.1	NT	Homo sapiens protein phosphatase 2, regulatory subunit B (B56), epsilon isoform (PPP2R6E) mRNA
3690	16723	29616	0.68	8.0E-47	AB041926.1	NT	Homo sapiens 959 kb contig between ANIL1 and CBR1 on chromosome 21q22, segment 3/3
3690	16723	28617	0.68	8.0E-47	AB041926.1	NT	Homo sapiens mRNA for GCK family kinase MINK-2, complete cds
6371	18353	31193	0.92	8.0E-47	7662421	NT	Homo sapiens mRNA for GCK family kinase MINK-2, complete cds
12829	25739		1.78	7.0E-47	AV693284.1	EST_HUMAN	Homo sapiens KIAA0971 protein (KIAA0971), mRNA
2578	15578	28572	4.46	6.0E-47	AL163246.2	NT	AV693284 GKC Homo sapiens cDNA clone GKCASH11 5'
9250	22178	35532	0.53	6.0E-47	U77054.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C046
9816	22722	36105	7.41	6.0E-47	AI895189.1	EST_HUMAN	HSU77054 Human Homo sapiens cDNA clone N7
10234	23125	36526	0.64	6.0E-47	AB042824.1	NT	7682b02.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2296659 3'
							Homo sapiens RECQL5 beta mRNA for DNA helicase recQ5 beta, complete cds

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
10234	23125	36527	0.84	6.0E-47	AB042824.1	NT	Homo sapiens RECQL5 beta mRNA for DNA helicase recQ5 beta, complete cds
6859	19891	33105	7.46	5.0E-47	11423972	NT	Homo sapiens CDC37 (cell division cycle 37, S. cerevisiae, homolog) (CDC37), mRNA
11236	24192		3.62	5.0E-47	M78590.1	EST_HUMAN	EST007398 Fetal brain, Stratiogene (cd8936206) Homo sapiens cDNA clone HFB0707
1425	14456	27410	2.84	4.0E-47	4557556	NT	Homo sapiens E1A binding protein p300 (EP300) mRNA
7145	20253	33505	0.77	4.0E-47	BE698866.1	EST_HUMAN	MR4-TN0108-280800-201-d04 TN0108 Homo sapiens cDNA
9050	21979	35335	2.12	4.0E-47	BE616483.1	EST_HUMAN	601280486F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3622437 5'
9050	21979	35338	2.12	4.0E-47	BE616483.1	EST_HUMAN	601280486F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3622437 5'
9177	22105	35483	0.83	4.0E-47	AW969777.1	EST_HUMAN	RC3-BN0034-220300-015-005 BN0034 Homo sapiens cDNA
12063	24904		2.46	4.0E-47	AW515509.1	EST_HUMAN	xx66507.x1 NCL CGAP_Lym12 Homo sapiens cDNA clone IMAGE:2848897 3' similar to SW:INT6_MOUSE
569	13635	26545	1.77	3.0E-47	BE907634.1	EST_HUMAN	Q64252 VIRAL INTEGRATION SITE PROTEIN INT-6, [1];
566	13635	26546	1.77	3.0E-47	BE907634.1	EST_HUMAN	601497639F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3899721 5'
843	13898	26836	3.47	3.0E-47	N57483.1	EST_HUMAN	601497639F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3899721 5'
673	14024	26968	9.13	3.0E-47	AL163284.2	NT	Y654804.s1 Soares_multiple_sclerosis_2NBHIMP Homo sapiens cDNA clone IMAGE:277327 3'
3348	16394	29285	1.59	3.0E-47	4504116	NT	Homo sapiens chromosome 21 segment HS21C084
4049	17076		6.31	3.0E-47	U93181.1	NT	Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA
6245	19299	32457	4.63	3.0E-47	AW408900.1	EST_HUMAN	Homo sapiens nuclear dual-specificity phosphatase (SBF1) mRNA, partial cds
6245	19299	32458	4.63	3.0E-47	AW408900.1	EST_HUMAN	UI-HF-BM0-adv-d-07-0-UIr1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3063205 5'
6845	19877		1.81	3.0E-47	AI222413.1	EST_HUMAN	UI-HF-BM0-adv-d-07-0-UIr1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3063205 5'
7775	20705	34006	0.87	3.0E-47	AI819755.1	EST_HUMAN	qh04e07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843716 3'
7775	20705	34007	0.67	3.0E-47	AI819755.1	EST_HUMAN	w11h08.x1 NCL CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2402559 3'
9391	22319	35681	0.73	3.0E-47	AW969798.1	EST_HUMAN	w11h08.x1 NCL CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2402559 3'
9391	22319	35682	0.73	3.0E-47	AW969798.1	EST_HUMAN	EST375869 IMAGE resequences, MAGH Homo sapiens cDNA
158	13253	26176	1.28	2.0E-47	4505318	NT	EST375869 IMAGE resequences, MAGH Homo sapiens cDNA
994	14044	26988	1.85	2.0E-47	AL163209.2	NT	Homo sapiens myosin phosphatase, target subunit 2 (MYPT2), mRNA
994	14044	26987	1.85	2.0E-47	AL163209.2	NT	Homo sapiens chromosome 21 segment HS21C009
1587	14618		1	2.0E-47	AI869278.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C009
1515	14646	27608	1.39	2.0E-47	7662109	NT	Homo sapiens KIAA0426 gene product (KIAA0426), mRNA
1704	14733	27699	3.83	2.0E-47	AA524514.1	EST_HUMAN	wq96b02.x1 NCL CGAP_GC6 Homo sapiens cDNA clone IMAGE:2479851 3'
2247	16267	28263	1.12	2.0E-47	AF060568.1	NT	Homo sapiens KIAA0426 gene product (KIAA0426), mRNA
4459	17467	30324	2.07	2.0E-47	4504866	NT	ng43h12.s1 NCL CGAP_Co3 Homo sapiens cDNA clone IMAGE:937607 3'
4491	17502	30365	2.02	2.0E-47	AA569592.1	EST_HUMAN	Homo sapiens ling finger protein (C3Hc4 type)8 (RNFB), mRNA
4491	17502	30366	2.02	2.0E-47	AA569592.1	EST_HUMAN	Homo sapiens promyelocytic leukemia zinc finger protein (PLZF) gene, complete cds
4627	17833	30497	3.41	2.0E-47	5174848	NT	nt23g07.s1 NCL CGAP_P11 Homo sapiens cDNA clone IMAGE:914652
							nt23g07.s1 NCL CGAP_P11 Homo sapiens cDNA clone IMAGE:914652
							Homo sapiens Rev/Rex activation domain binding protein-related (RAB-R) mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5994	18059	32186	0.84	2.0E-47	AF073921.1	NT	Homo sapiens regulator of G-protein signalling 9 variant form (RGS9) mRNA, complete cds
6205	19261	32408	1.39	2.0E-47	BE778475.1	EST_HUMAN	601463932F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3867487 5'
6205	19261	32409	1.39	2.0E-47	BE778475.1	EST_HUMAN	601463932F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3867487 5'
8163	26684		1.43	2.0E-47	L09731.1	NT	Homo sapiens 5-hydroxytryptamine 1D receptor pseudogene with an Alu repeat insertion
8404	21307	34639	0.4	2.0E-47	11419317	NT	Homo sapiens protein tyrosine phosphatase, non-receptor type 12 (PTPN12), mRNA
8542	21473	34814	0.95	2.0E-47	D87675.1	NT	Homo sapiens DNA for amyloid precursor protein, complete cds
8542	21473	34815	0.95	2.0E-47	D87675.1	NT	Homo sapiens DNA for amyloid precursor protein, complete cds
9277	22205	35582	1.35	2.0E-47	AF071771.1	NT	Homo sapiens SPH-binding factor mRNA, partial cds
10022	22822	36310	0.98	2.0E-47	11528136	NT	Homo sapiens BTG family, member 3 (BTG3), mRNA
12424	25865	31472	2.43	2.0E-47	R42423.1	EST_HUMAN	y92808.s1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:299668 3' similar to contains OFR repetitive element;
1430	14461	27413	3.11	1.0E-47	A033429.1	EST_HUMAN	q99h03.x1 Soares_fetal_lung_NbHL10W Homo sapiens cDNA clone IMAGE:1931189 3'
3895	16924	26800	0.98	1.0E-47	BE280477.1	EST_HUMAN	601155321F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3138893 5'
3895	16924	26801	0.98	1.0E-47	BE280477.1	EST_HUMAN	601155321F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3138893 5'
5210	18200	31044	3.06	1.0E-47	AW813906.1	EST_HUMAN	RC3-ST0197-130400-017-h02 ST0197 Homo sapiens cDNA
7395	20094	33328	27.78	1.0E-47	AI880886.1	EST_HUMAN	at19e06.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2355586 3' similar to gb:M22995
8426	22354		2.21	1.0E-47	AW684648.1	EST_HUMAN	RAS-RELATED PROTEIN RAP-1A (HUMAN);
10842	23728	37151	2.62	1.0E-47	L30115.1	NT	h84e11.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2978972 3' similar to gb:M26326 KERATIN, TYPE I CYTOSKELETAL 18 (HUMAN);
1635	14665	27627	4.36	9.0E-48	AF223391.1	NT	Papio hamadryas alcohol dehydrogenase class I (ADH) gene, 5' region
3817	16653	29554	0.73	9.0E-48	BF359947.1	EST_HUMAN	Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced
5877	18946	32062	0.74	9.0E-48	BE888196.1	EST_HUMAN	GM2-MT0100-310700-290-f05 MT0100 Homo sapiens cDNA
5877	18946	32063	0.74	9.0E-48	BE888196.1	EST_HUMAN	601511714F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913106 5'
6338	19388	32557	0.48	9.0E-48	AI833168.1	EST_HUMAN	601511714F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913106 5'
6470	19515	32690	0.73	9.0E-48	AU123240.1	EST_HUMAN	601511714F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913106 5'
11556	24465	37930	3.65	9.0E-48	BE303813.1	EST_HUMAN	at75h09.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2377889 3' similar to TR:O60844
1278	14312		2.99	8.0E-48	4501900	NT	O60844 HOMOLOG OF RAT ZMOGEN GRANULE MEMBRANE PROTEIN ;
1279	14312		2.87	8.0E-48	4501900	NT	AU123240 NT2RM1 Homo sapiens cDNA clone NT2RM1000978 5'
3180	16230	28124	4.26	8.0E-48	AW768477.1	EST_HUMAN	601310479F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3632083 5'
							Homo sapiens aminocyclase 1 (ACY1), mRNA
							Homo sapiens aminocyclase 1 (ACY1), mRNA
							h851b03.x1 NCI CGAP_Lym12 Homo sapiens cDNA clone IMAGE:3001133 3' similar to gb:X64707
							BREAST BASIC CONSERVED PROTEIN 1 (HUMAN);



Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3180	16230	29126	4.26	8.0E-48	AW769477.1	EST_HUMAN	hK61503.x1 NCL CGAP_Lym12 Homo sapiens cDNA clone IMAGE:3001133 3' similar to gb:X64707
513	13584		1.61	7.0E-48	AB033035.1	NT	BREAST BASIC CONSERVED PROTEIN 1 (HUMAN);
514	13584		12.95	7.0E-48	AB033035.1	NT	Homo sapiens mRNA for KIAA1209 protein, partial cds
1663	14693	27653	5	7.0E-48	5730038	NT	Homo sapiens mRNA for KIAA1209 protein, partial cds
6836	19693	33082	24.59	7.0E-48	11416831	NT	Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA
3660	16695	29591	0.69	6.0E-48	A1761111.1	EST_HUMAN	Homo sapiens histidyl-tRNA synthetase (HARS), mRNA
4802	17803	30670	0.91	6.0E-48	AA746867.1	EST_HUMAN	w68h03.x1 NCL CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2398613 3'
6293	18344	32512	0.98	6.0E-48	AB006955.1	NT	hK64404.s1 NCL CGAP_Alv1 Homo sapiens cDNA clone IMAGE:1267015
7093	20293	33560	0.81	6.0E-48	11420995	NT	Homo sapiens mRNA for AIE-75, complete cds
7877	25678	34106	0.6	6.0E-48	AB046844.1	NT	Homo sapiens BMX non-receptor tyrosine kinase (BMX), mRNA
9686	22594	35969	1.83	6.0E-48	AF026816.1	NT	Homo sapiens mRNA for KIAA1824 protein, partial cds
10070	22966	36379	1.91	6.0E-48	11427428	NT	Homo sapiens mRNA for KIAA1824 protein, partial cds
10212	23103	36504	3.65	6.0E-48	AA189080.1	EST_HUMAN	Homo sapiens putative oncogene protein mRNA; partial cds
2267	15277	28283	1.09	5.0E-48	4827059	NT	Homo sapiens hypothetical protein FLJ11006 (FLJ11006), mRNA
2277	15263	28284	0.91	5.0E-48	4827059	NT	Zq45b06.s1 Striatagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:632827 3' similar to contains Alu repetitive element;
3355	18403	29300	2.09	5.0E-48	4826891	NT	Homo sapiens xylulokinase (H. influenzae) homolog (XYLB) mRNA
11395	24311	37757	3.3	4.0E-48	A1820420.1	EST_HUMAN	Homo sapiens xylulokinase (H. influenzae) homolog (XYLB) mRNA
1412	14443	27396	1.26	3.0E-48	AV690984.1	EST_HUMAN	Homo sapiens phosphodiesterase 1A, calmodulin-dependent (PDE1A) mRNA
1992	15010	27899	7.65	3.0E-48	4885170	NT	tu47a02.x1 NCL CGAP_Pt28 Homo sapiens cDNA clone IMAGE:2264154 3'
1992	15010	28000	7.65	3.0E-48	4885170	NT	AV690984 GKO Homo sapiens cDNA clone GIKDRE12 5'
3479	16519	29418	1.04	3.0E-48	AF172453.1	NT	Homo sapiens chromosome X open reading frame 6 (CXORF6) mRNA
3698	16730	29621	1.22	3.0E-48	AW664531.1	EST_HUMAN	Homo sapiens chromosome X open reading frame 6 (CXORF6) mRNA
6112	19172	32304	2.29	3.0E-48	BE084571.1	EST_HUMAN	Homo sapiens opicid growth factor receptor mRNA, complete cds
7364	20358	33627	1.04	3.0E-48	AF087913.1	NT	hi14b12.x1 NCL CGAP_GU1 Homo sapiens cDNA clone IMAGE:2972265 3' similar to SW:DCRB_HUMAN
8962	21892		3.67	3.0E-48	AA659930.1	EST_HUMAN	P59555 DOWN SYNDROME CRITICAL REGION PROTEIN B. ;
11309	24226	37674	7.05	3.0E-48	BF514170.1	EST_HUMAN	MR4-BT0657-060400-201-e10 BT0657 Homo sapiens cDNA
5	13121	26008	1.1	2.0E-48	AA465007.1	EST_HUMAN	Human endogenous retrovirus HERV-P-T47D
48	13165	26059	1.64	2.0E-48	AA631940.1	EST_HUMAN	nv0305.s1 NCL CGAP_Pt22 Homo sapiens cDNA clone IMAGE:1219137 3' similar to contains PTR6.b1 PTR6 repetitive element ;
							UI-H-BW1-epi-e-10-0-UI.s1 NCL CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3082267 3'
							zx80c03.r1 Soares ovary tumor NBH07 Homo sapiens cDNA clone IMAGE:810052 5'
							fmc7 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR17-28

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Table 4

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4648	17654	30520	1.34	2.0E-48	BE246065.1	EST_HUMAN	TCBAP1D3842 Pediatric, pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP3842
6025	19087	32212	0.69	2.0E-48	AA613171.1	EST_HUMAN	no18g01.s1 NCL_CGAP_Phet1 Homo sapiens cDNA clone IMAGE:1101072.3'
6025	19087	32213	0.69	2.0E-48	AA613171.1	EST_HUMAN	no18g01.s1 NCL_CGAP_Phet1 Homo sapiens cDNA clone IMAGE:1101072.3'
7942	20884	34174	3.76	2.0E-48	AB040934.1	NT	Homo sapiens mRNA for KIAA1501 protein, partial cds
7942	20884	34175	3.76	2.0E-48	AB040934.1	NT	Homo sapiens mRNA for KIAA1501 protein, partial cds
7959	20881	34193	4.86	2.0E-48	11498238	NT	Homo sapiens v-rel avian reticuloendotheliosis viral oncogene homolog A (nuclear factor of kappa light polypeptide gene enhancer in B-cells 3 (p63)) (RELA), mRNA
8928	21859	35213	1.38	2.0E-48	AV743451.1	EST_HUMAN	AV743451 CB Homo sapiens cDNA clone CBOCCGG10.5'
12393	13121	26008	3.07	2.0E-48	AA455007.1	EST_HUMAN	z80c03.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:810052.5'
12700	25794	31580	2.02	2.0E-48	BE737154.1	EST_HUMAN	601305084F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3639782.5'
59	13175	26076	48.76	1.0E-48	7706534	NT	Homo sapiens dispiralin resistance-associated $\alpha$ -expressed protein (LOC51747), mRNA
898	13951	26898	4.8	1.0E-48	4502166	NT	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA
1103	14146	27084	2.39	1.0E-48	7657430	NT	Homo sapiens EBNA-2 co-activator (100kD) (p100), mRNA
1103	14146	27085	2.39	1.0E-48	7657430	NT	Homo sapiens EBNA-2 co-activator (100kD) (p100), mRNA
1322	14356	27303	2.88	1.0E-48	6032032	NT	Homo sapiens RNA binding motif protein 6 (RBM6) mRNA
1934	14955	27832	25.02	1.0E-48	AL163302.2	NT	Homo sapiens chromosome 21 segment HS21G102
3547	16585	29490	0.95	1.0E-48	AL163246.2	NT	Homo sapiens chromosome 21 segment HS21G046
6541	19584	32768	0.94	1.0E-48	AI889077.1	EST_HUMAN	1617601.x1 NCL_CGAP_Cot16 Homo sapiens cDNA clone IMAGE:2075904.3' similar to TR:O14588 O14588 SIMILARITY TO U73941.1
6541	19584	32769	0.94	1.0E-48	AI889077.1	EST_HUMAN	1617601.x1 NCL_CGAP_Cot16 Homo sapiens cDNA clone IMAGE:2075904.3' similar to TR:O14588 O14588 SIMILARITY TO U73941.1
6778	19810		0.91	1.0E-48	Y18000.1	NT	Homo sapiens NF2 gene
6880	19910	33125	0.58	1.0E-48	AB028994.1	NT	Homo sapiens mRNA for KIAA1071 protein, partial cds
6880	19910	33126	0.56	1.0E-48	AB028994.1	NT	Homo sapiens mRNA for KIAA1071 protein, partial cds
7630	20565	33859	2.99	1.0E-48	4755137	NT	Homo sapiens huntinglin (Huntington disease) (HD) mRNA
9754	22678	36063	1.03	1.0E-48	4502838	NT	Homo sapiens Chediak-Higashi syndrome 1 (CHS1) mRNA
9808	22714	36097	7.14	1.0E-48	AB033071.1	NT	Homo sapiens mRNA for KIAA1245 protein, partial cds
10111	23002	36398	4.69	1.0E-48	BF304883.1	EST_HUMAN	G01888096F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4122119.5'
10858	23744	37167	4.48	1.0E-48	11429808	NT	Homo sapiens B cell linker protein (SLP65), mRNA
10858	23744	37168	4.48	1.0E-48	11429808	NT	Homo sapiens B cell linker protein (SLP65), mRNA
2022	15040	28034	1.26	8.0E-49	AB026497.1	NT	Mus musculus MyoPDZ mRNA for myosin containing PDZ domain, complete cds
6283	19339	32506	3.39	8.0E-49	10048417	NT	Mus musculus T-box 20 (Tbx20), mRNA

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6289	18339	32507	3.39	8.0E-49	10048417	NT	Mus musculus T-box 20 (Tbx20), mRNA
7156	20264	33518	0.57	8.0E-49	AA642035.1	EST_HUMAN	ns18h03.r1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1184021 5'
8871	21801	35155	4.49	8.0E-49	U23850.1	NT	Human inositol 1,4,5 trisphosphate receptor type 1 mRNA, partial cds
10495	23303	35795	1.43	8.0E-49	AB008981.1	NT	Homo sapiens gene for activin receptor type IIB, complete cds
144	13488	26407	2.05	7.0E-49	5729990	NT	Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMCA4) mRNA
144	13488	26408	2.05	7.0E-49	5729990	NT	Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMCA4) mRNA
415	13488	26407	2.48	7.0E-49	5729990	NT	Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMCA4) mRNA
415	13488	26408	2.48	7.0E-49	5729990	NT	Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMCA4) mRNA
416	13498	26407	2.71	7.0E-49	5729990	NT	Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMCA4) mRNA
416	13498	26408	2.71	7.0E-49	5729990	NT	Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMCA4) mRNA
1249	14295	27228	1.68	7.0E-49	AL163284.2	NT	Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMCA4) mRNA
4759	17764	30627	1.02	7.0E-49	O60811	SWISSPROT	Homo sapiens chromosome 21 segment HS21C084
5645	18719	31623	1.71	7.0E-49	AI807191.1	EST_HUMAN	HYPOPHYSICAL PROTEIN DJ845024.3
5658	18730	31635	1.09	7.0E-49	AL120937.1	EST_HUMAN	wf25h04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2356663 3' similar to TR:O54923
6016	18719	31623	1.07	7.0E-49	AI807191.1	EST_HUMAN	O54923 RSEC15.1
210	13309	26226	29.3	6.0E-49	AW731740.1	EST_HUMAN	DKFZp762C033_s1 762 (synonym: hmel2) Homo sapiens cDNA clone DKFZp762C033 3'
6045	19107	32237	0.49	6.0E-49	AW511225.1	EST_HUMAN	wf25h04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2356663 3' similar to TR:O54923
6710	19745	32949	0.69	6.0E-49	AU140742.1	EST_HUMAN	O54923 RSEC15.1
7815	20744	34049	0.56	6.0E-49	AW511225.1	EST_HUMAN	ba55g05.x1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2900504 3' similar to gb:X17206 40S
11725	24827	38107	4.36	6.0E-49	AW452218.1	EST_HUMAN	RIBOSOMAL PROTEIN S4 (HUMAN); gb:M2632 Mouse LLRep3 protein mRNA from a repetitive element, complete (MOUSE);
12088	24928	38433	3.13	6.0E-49	AA366556.1	EST_HUMAN	hd44e02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2912378 3' similar to TR:O95639
12088	24929	38434	3.13	6.0E-49	AA366556.1	EST_HUMAN	O95638 CAMP-REGULATED GUANINE NUCLEOTIDE EXCHANGE FACTOR II.;
12085	28723	26716	9.03	6.0E-49	AA707587.1	EST_HUMAN	AU140742 PLACE4 Homo sapiens cDNA clone PLACE4000148 5'
735	13793	26716	6.77	5.0E-49	AL163210.2	NT	hd44e02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2912378 3' similar to TR:O95636
735	13793	26717	6.77	5.0E-49	AL163210.2	NT	O95638 CAMP-REGULATED GUANINE NUCLEOTIDE EXCHANGE FACTOR II.;
							U1H-B13-abo-a-05-0-U1.st NCL_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:3068048 3'
							EST177525 Pancreas tumor III Homo sapiens cDNA 5' end
							EST177525 Pancreas tumor III Homo sapiens cDNA 5' end
							zj26c08.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:451694 3'
							Homo sapiens chromosome 21 segment HS21C010
							Homo sapiens chromosome 21 segment HS21C010
1817	14841	27816	6.22	5.0E-49	AA172121.1	EST_HUMAN	zp28c07.r1 Stratagene neurophilum (#937231) Homo sapiens cDNA clone IMAGE:610860 5' similar to TR:G233228 RTVL-H PROTEIN. ;contains LTR7.3 LTR7 LTR7 repetitive element ;

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2799	15788	28787	6.37	5.0E-49	U17714.1	NT	Homo sapiens putative tumor suppressor ST13 (ST13) mRNA, complete cds
3317	16364	29264	2.42	5.0E-49	11436355	NT	Homo sapiens similar to ribosomal protein S27 (melalopansimulin 1) (H. sapiens) (LOC63352), mRNA x08b01.x1 NCI_CGAP_U14 Homo sapiens cDNA clone IMAGE:2875993 3' similar to WP:B0350.2B
648	13617	26524	26.58	4.0E-49	AW189533.1	EST_HUMAN	CE06703 ;
7616	20551	33843	0.56	4.0E-49	Z28634.2	NT	Homo sapiens mRNA for ankryrin B (440 kDa)
7616	20551	33844	0.56	4.0E-49	Z28634.2	NT	Homo sapiens mRNA for ankryrin B (440 kDa)
7648	20582	33879	0.84	4.0E-49	11525737	NT	Homo sapiens UDP-N-acetyl-alpha-D-galactose 4-epimerase polypeptide N-acetylgalactosaminyltransferase 8 (GALNAc-T8) (GALNT8), mRNA
7648	20582	33880	0.84	4.0E-49	11525737	NT	Homo sapiens UDP-N-acetyl-alpha-D-galactose 4-epimerase polypeptide N-acetylgalactosaminyltransferase 8 (GALNAc-T8) (GALNT8), mRNA
7908	20833	34135	0.45	4.0E-49	AB002354.2	NT	Homo sapiens KIAA0823 gene product (KIAA0823), mRNA
8325	21230	34565	0.7	4.0E-49	7662209	NT	Homo sapiens KIAA0823 gene product (KIAA0823), mRNA
12563	25918		4.86	4.0E-49	AA210786.1	EST_HUMAN	z60f05.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:682977 5'
12648	25323		12.03	4.0E-49	AF240786.1	NT	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds
582	13650	28556	1.04	3.0E-49	X68968.1	NT	H. sapiens mRNA for acetyl-CoA carboxylase z631c05.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:360584 5' similar to contains L1.13 L1 repetitive element ;
2696	16690		3.49	3.0E-49	AA016131.1	EST_HUMAN	Human type IV collagen (COL4A6) gene, exon 40
5105	18102	30950	2.73	3.0E-49	U46999.1	NT	EST25e12 WATM1 Homo sapiens cDNA clone 25e12
7820	20749	34054	9.14	3.0E-49	H39479.1	EST_HUMAN	EST142572 Endometrial tumor Homo sapiens cDNA 5' end
11748	24649	38130	1.84	3.0E-49	AA337561.1	EST_HUMAN	MR3-HT0487-150200-113-g01 HT0487 Homo sapiens cDNA
684	13749		2.4	2.0E-49	BE165980.1	EST_HUMAN	Y23d06.r1 Soares melanocyte 2NbhM Homo sapiens cDNA clone IMAGE:282571 5'
3269	16317	29220	1.4	2.0E-49	N28446.1	EST_HUMAN	Homo sapiens RNA binding protein II (RBVII) gene, complete cds
3629	16665	29563	0.95	2.0E-49	AF026564.1	NT	U1-H-B14-aps-d02-0-U1.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3088538 3'
4924	17823	30787	0.71	2.0E-49	BF511846.1	EST_HUMAN	AV717938 DCB Homo sapiens cDNA clone DGBALB01 5'
7040	20066	33300	1.16	2.0E-49	AV717938.1	EST_HUMAN	EST02559 Fetal brain, Striatum (cat#333206) Homo sapiens cDNA clone HFB0CY50
8678	21609		3.33	2.0E-49	M86033.1	EST_HUMAN	H. sapiens mRNA for CAP-binding protein complex interacting protein 1
12326	25801		1.83	2.0E-49	Y10776.1	NT	Homo sapiens SNCA isoform (SNCA) gene, complete cds, alternatively spliced
12657	25811		2.85	2.0E-49	AF163864.1	NT	601456631.F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5'
924	13976		4.83	1.0E-49	BF035327.1	EST_HUMAN	Homo sapiens keratin 18 (KRT18) mRNA
1576	14606	27565	13.36	1.0E-49	4857887	NT	601115795.F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3356273 5'
1823	14846	27822	2.37	1.0E-49	BE255216.1	EST_HUMAN	601820053.F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:4052052 5'
5544	18622	31498	6.98	1.0E-49	BF131007.1	EST_HUMAN	

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6314	19364	32534	0.89	1.0E-48	H18291.1	EST_HUMAN	yn48h04.r1 Soares adult brain N2b5HB55Y Homo sapiens cDNA clone IMAGE:171703 5' similar to SP:GBG1_HUMAN Q08447 GUANINE NUCLEOTIDE-BINDING PROTEIN G(T) GAMMA-1 SUBUNIT ;
6320	19370	32539	1.54	1.0E-49	AY984640.1	EST_HUMAN	EST378713 IMAGE resequences, MAGH Homo sapiens cDNA
7586	20522	33809	0.51	1.0E-49	AV703000.1	EST_HUMAN	AV703000 ADB Homo sapiens cDNA clone ADBQVD11 5'
7586	20522	33810	0.51	1.0E-49	AV703000.1	EST_HUMAN	AV703000 ADB Homo sapiens cDNA clone IMAGE:3620863 5'
7592	20528	33818	2.76	1.0E-49	BE398110.1	EST_HUMAN	G01290330F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3620863 5'
7592	20528	33819	2.76	1.0E-49	BE398110.1	EST_HUMAN	G01290330F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3620863 5'
7682	20616	33915	2.16	1.0E-49	N25884.1	EST_HUMAN	Yw78g12.s1 Soares placenta 8'c6weeks. 2Nblp8to9W Homo sapiens cDNA clone IMAGE:258406 3'
7682	20616	33916	2.16	1.0E-49	N25884.1	EST_HUMAN	similar to gb:X65873 KINESIN HEAVY CHAIN (HUMAN);
8656	21587	34923	1.14	1.0E-49	11321580	NT	similar to gb:X65873 KINESIN HEAVY CHAIN (HUMAN);
8656	21587	34924	1.14	1.0E-49	11321580	NT	Homo sapiens succinate-CoA ligase, GDP-forming, alpha subunit (SUCLG1), mRNA
9233	22161	35829	0.71	1.0E-49	8994184	NT	Homo sapiens RNA binding motif protein 7 (LOC51120), mRNA
9544	22471	35829	1.35	1.0E-49	BE409340.1	EST_HUMAN	G01300992F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635398 5'
10628	23512	36945	1.34	1.0E-49	AL043129.2	EST_HUMAN	DKFZp434D2423_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434D2423 5'
11487	24399	37849	1.49	1.0E-49	AV751477.1	EST_HUMAN	AV751477 NPD Homo sapiens cDNA clone NPD4WE04 5'
11755	24656	38139	5.93	1.0E-49	11427368	NT	Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 1 (BIG1), mRNA
12560	25272		2.1	1.0E-49	- 11418322	NT	Homo sapiens cadherin EGF LAG seven-pass G-type receptor 1 (CELSR1), mRNA
6659	25979		0.86	9.0E-50	BE295758.1	EST_HUMAN	G01176250F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531588 5'
180	13280	26195	2.73	8.0E-50	AL163202.2	NT	Homo sapiens chromosome 21 segment HS21C002
742	13600	26724	1.67	8.0E-50	XG5097.2	NT	Homo sapiens mRNA for VIP receptor 2
742	13600	26725	1.67	8.0E-50	XG5097.2	NT	Homo sapiens mRNA for VIP receptor 2
1058	14102		14.95	8.0E-50	AF000573.1	NT	Homo sapiens homogenisate 1,2-dioxygenase gene, complete cds
1788	14814	27783	2.7	8.0E-50	4501890	NT	Homo sapiens actin, alpha 1 (ACTN1), mRNA
2750	15741	28736	1.28	8.0E-50	4826858	NT	Homo sapiens capping protein (actin filament) muscle Z-line, beta (CAPZB), mRNA
4198	17218	30084	0.98	8.0E-50	AL163281.2	NT	Homo sapiens chromosome 21 segment HS21C081
642	13703	28610	2.14	7.0E-50	BE089591.1	EST_HUMAN	QV0-BT0703-280400-211-e08 BT0703 Homo sapiens cDNA
7092	20298	33558	0.76	7.0E-50	BF091922.1	EST_HUMAN	RC6-TN0073-150900-011-A12 TN0073 Homo sapiens cDNA
7092	20298	33559	0.76	7.0E-50	BF091922.1	EST_HUMAN	RC6-TN0073-150900-011-A12 TN0073 Homo sapiens cDNA
7688	20821	33921	0.73	7.0E-50	AA627822.1	EST_HUMAN	nc95e12.s1 NCL CGAP_C09 Homo sapiens cDNA clone IMAGE:1148206 3' similar to gb:X69391 60S
11196	24122	37568	16.2	7.0E-50	AB72137.1	EST_HUMAN	RIBOSOMAL PROTEIN L6 (HUMAN);
4452	17462		0.79	6.0E-50	BE794381.1	EST_HUMAN	Ym56g11.x1 NCL CGAP_U12 Homo sapiens cDNA clone IMAGE:2439908 3'
							G01589565F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943577 5'

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8792	21722		6.06	6.0E-50	BE044076.1	EST_HUMAN	h036h04.x1 NCL_CGAP_U01 Homo sapiens cDNA clone IMAGE:3039511 3' similar to contains MER29.b3 MER29 repetitive element;
11254	24179	37626	2.63	6.0E-50	AA312078.1	EST_HUMAN	EST182775 Jurkat T-cells VI Homo sapiens cDNA 5' end
11254	24179	37627	2.63	6.0E-50	AA312079.1	EST_HUMAN	EST182775 Jurkat T-cells VI Homo sapiens cDNA 5' end
1816	14840	27814	1.17	6.0E-50	BF332938.1	EST_HUMAN	GM0-BT0792-300500-398-b05 BT0792 Homo sapiens cDNA
1816	14840	27815	1.17	6.0E-50	BF332938.1	EST_HUMAN	GM0-BT0792-300500-398-b05 BT0792 Homo sapiens cDNA
9638	22564		4.38	5.0E-50	AA557683.1	EST_HUMAN	n145h10.s1 NCL_CGAP_P14 Homo sapiens cDNA clone IMAGE:1043883 similar to contains PTR6.b3 PTR5 repetitive element;
942	13903		1.64	4.0E-50	AA601143.1	EST_HUMAN	n054e09.s1 NCL_CGAP_SS1 Homo sapiens cDNA clone IMAGE:1104520 3' similar to gb:X53741_rna1 FIBULIN-1, ISOFORM A PRECURSOR (HUMAN);
3509	16547	26447	1.19	4.0E-50	AL163248.2	NT	Homo sapiens chromosome 21 segment HS21C048
6621	19661	32846	0.53	4.0E-50	11440683	NT	Homo sapiens cysteinyl-RNA synthetase (CARS), mRNA
7604	20539	33828	0.94	4.0E-50	BE087536.1	EST_HUMAN	QV1-BT0691-280300-127-r12 BT0691 Homo sapiens cDNA
13089	25945		1.54	4.0E-50	AA769866.1	EST_HUMAN	z118b09.s1 Soares_fetal_liver_spleen_INFLS_51 Homo sapiens cDNA clone IMAGE:431129 3'
1953	14973		4.69	3.0E-50	M18048.1	NT	Human endogenous retrovirus RTVL-H2
2544	15544	28542	1.08	3.0E-50	BE259196.1	EST_HUMAN	601109717F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350309 5'
3342	16393	29288	1.01	3.0E-50	AA746142.1	EST_HUMAN	ob03706.s1 NCL_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1322827 3'
6973	20000	33230	0.53	3.0E-50	11419317	NT	Homo sapiens protein tyrosine phosphatase, non-receptor type 12 (PTPN12), mRNA
6973	20000	33231	0.53	3.0E-50	11419317	NT	Homo sapiens protein tyrosine phosphatase, non-receptor type 12 (PTPN12), mRNA
7070	20276	33631	1.46	3.0E-50	11421514	NT	Homo sapiens similar to sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3A (H. sapiens) (LOC63232), mRNA
8093	21005	34328	4.33	3.0E-50	AF233436.2	NT	Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP1a mRNA, complete cds
8093	21005	34329	4.33	3.0E-50	AF233436.2	NT	Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP1a mRNA, complete cds
9145	22073	35435	0.65	3.0E-50	6601589	NT	Homo sapiens ankyrin-like with transmembrane domains 1 (ANKTM1), mRNA
10333	23222	36636	0.82	3.0E-50	AB046818.1	NT	Homo sapiens mRNA for KIAA1598 protein, partial cds
10342	23231	36648	1.09	3.0E-50	11418514	NT	Homo sapiens t-complex 10 (a murine top homolog) (TCP10), mRNA
10998	23882	37313	0.77	3.0E-50	AB002297.1	NT	Human mRNA for KIAA0298 gene, partial cds
11546	24455	37917	1.86	3.0E-50	11436955	NT	Homo sapiens G162-associated binder 2 (KIAA0371), mRNA
11806	23896	37434	7.68	3.0E-50	AJ245621.1	NT	Homo sapiens CTL2 gene
804	13859		4.48	2.0E-50	AF055066.1	NT	Homo sapiens MHC class 1 region
1107	14149	27089	5.31	2.0E-50	4557752	NT	Homo sapiens midline 1 (Opitz/BBB syndrome) (MID1) mRNA
1481	14492	27454	4.01	2.0E-50	AF138303.1	NT	Homo sapiens decorin D mRNA, complete cds, alternatively spliced

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4360	17374	30237	0.71	2.0E-50	D88424.1	NT	Mus musculus mRNA for high-sulfur keratin protein, partial cds
7193	20193	33437	0.58	2.0E-50	AU124065.1	EST_HUMAN	AU124065 NT2RM2 Homo sapiens cDNA clone NT2RM2001609 5'
8891	21821	35172	1.01	2.0E-50	AB038182.1	NT	Homo sapiens TFF gene cluster for trefoil factor, complete cds
8891	21821	36173	1.01	2.0E-50	AB038182.1	NT	Homo sapiens TFF gene cluster for trefoil factor, complete cds
9024	21953	35310	5.27	2.0E-50	X06956.1	NT	Human HALPHA44 gene for alpha-tubulin, exons 1-3
9024	21953	35311	5.27	2.0E-50	X06956.1	NT	Human HALPHA44 gene for alpha-tubulin, exons 1-3
10396	23265	36706	1.64	2.0E-50	9910293	NT	Mus musculus keratin complex 2, gene 5g (Krt2-5g), mRNA
10396	23265	36707	1.64	2.0E-50	9910293	NT	Mus musculus keratin complex 2, gene 5g (Krt2-5g), mRNA
12087	24928		1.59	2.0E-50	AF023861.1	NT	Macaca mulatta cyclophilin A mRNA, complete cds
484	13555	28471	1.52	1.0E-50	AL183209.2	NT	Homo sapiens chromosome 21 segment HS21C009
2388	13393		13.03	1.0E-50	AJ271735.1	NT	Homo sapiens Xq pseudautosomal region; segment 1/2
8161	21068		1.07	1.0E-50	AJ271735.1	NT	Homo sapiens Xq pseudautosomal region; segment 1/2
10590	23576	37006	1.34	1.0E-50	D11078.1	NT	Homo sapiens RGH2 gene, reovirus-like element
8212	19287	32418	1.18	9.0E-51	AW511225.1	EST_HUMAN	h44602.x1 Soares_NFL_T_CBC_S1 Homo sapiens cDNA clone IMAGE:2912378 3' similar to TR:O95636
8469	19514	32689	0.93	9.0E-51	AA744837.1	EST_HUMAN	O95636 CAMP-REGULATED GUANINE NUCLEOTIDE EXCHANGE FACTOR II ;
9230	22158	35512	0.65	9.0E-51	A1791154.1	EST_HUMAN	ny37h03.st NCI_CGAP_G081 Homo sapiens cDNA clone IMAGE:1283381 3'
8864	22779	36168	1.19	9.0E-51	AA043738.1	EST_HUMAN	eb23g04.x5 Stratagene lung (#837210) Homo sapiens cDNA clone IMAGE:841886 3' similar to
10032	22932	36318	0.6	9.0E-51	A1791154.1	EST_HUMAN	SW:PSM_HUMAN Q04609 PROSTATE-SPECIFIC MEMBRANE ANTIGEN ;
10032	22932	36318	0.6	9.0E-51	A1791154.1	EST_HUMAN	ab23g04.x5 Stratagene lung (#837210) Homo sapiens cDNA clone IMAGE:841886 3' similar to
11907	24007	37448	2.9	9.0E-51	H89078.1	EST_HUMAN	SW:PSM_HUMAN Q04609 PROSTATE-SPECIFIC MEMBRANE ANTIGEN ;
11907	24007	37449	2.9	9.0E-51	H89078.1	EST_HUMAN	ab23g04.x5 Stratagene lung (#837210) Homo sapiens cDNA clone IMAGE:841886 3' similar to
4545	17554	30415	2.45	8.0E-51	4503932	NT	SW:PSM_HUMAN Q04609 PROSTATE-SPECIFIC MEMBRANE ANTIGEN ;
4545	17554	30416	2.45	8.0E-51	4503932	NT	eb23g04.x5 Stratagene lung (#837210) Homo sapiens cDNA clone IMAGE:841886 3' similar to
4884	17689	30550	1.86	8.0E-51	AA610842.1	EST_HUMAN	eb23g04.x5 Stratagene lung (#837210) Homo sapiens cDNA clone IMAGE:841886 3' similar to
7534	20473	33761	0.49	8.0E-51	AF064254.1	NT	SW:PSM_HUMAN Q04609 PROSTATE-SPECIFIC MEMBRANE ANTIGEN ;
8101	21013	34339	1.85	8.0E-51	11439587	NT	yw24g06.r1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:263210 5'
9997	22814		1.01	8.0E-51	AU138590.1	EST_HUMAN	yw24g06.r1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:263210 5'
3062	16114	29017	1.14	7.0E-51	AW274720.1	EST_HUMAN	Homo sapiens glycine amidinotransferase (L-arginine:glycine amidinotransferase) (GATM) mRNA
							Homo sapiens glycine amidinotransferase (L-arginine:glycine amidinotransferase) (GATM) mRNA
							ncp8e09.st NCI_CGAP_Lu1 Homo sapiens cDNA clone IMAGE:1142440 3' similar to gb:X12671_rna1
							HETEROGENEUS NUCLEAR RIBONUCLEOPROTEIN A1 (HUMAN);
							Homo sapiens very long-chain acyl-CoA synthetase homolog 1 mRNA, complete cds
							Homo sapiens POZ-73 protein (POZ-73/NY-CO-38), mRNA
							AU138590 PLACE1 Homo sapiens cDNA clone IMAGE:1008887 5'
							xt34a03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2695564 3' similar to TR:Q92340
							Q92340 ATYPICAL PKC SPECIFIC BINDING PROTEIN ;

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3326	16372	29273	1.53	7.0E-51	AW89219.1	EST_HUMAN	QV4-NT0028-200400-180-d05 NT0028 Homo sapiens cDNA
							xn34803.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2695564 3' similar to TR:Q92340
3418	16460	29366	0.66	7.0E-51	AW274720.1	EST_HUMAN	Q92340 ATYPICAL PKC SPECIFIC BINDING PROTEIN. ;
4264	17293	30149	1.56	7.0E-51	AL079928.1	EST_HUMAN	DKFZp434B2229_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B2229 5'
4284	17283	30150	1.56	7.0E-51	AL079928.1	EST_HUMAN	DKFZp434B2229_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B2229 5'
4359	17373	30236	2.19	7.0E-51	11421595	NT	Homo sapiens immunoglobulin superfamily, member 3 (IGSF3), mRNA
4461	17472	30328	1.22	7.0E-51	AW295603.1	EST_HUMAN	UI-H-BW0-eip-b-05-0-UI.a1 NCL CGAP_Sub66 Homo sapiens cDNA clone IMAGE:2728817 3'
1550	14581	27541	0.92	6.0E-51	6678763	NT	Homo sapiens putative DNA binding protein (Mdb), mRNA
1995	15013	28003	5.46	6.0E-51	7657266	NT	Homo sapiens KIAA0929 protein Mx2 interacting nuclear target (MINT) homolog (KIAA0929), mRNA
3533	16571	29475	15.72	6.0E-51	7657266	NT	Homo sapiens KIAA0929 protein Mx2 interacting nuclear target (MINT) homolog (KIAA0929), mRNA
4413	17424	30286	1.06	6.0E-51	9910553	NT	Homo sapiens solute carrier family 2 (facilitated glucose transporter), member 9 (SLC2A9), mRNA
4413	17424	30286	1.06	6.0E-51	9910553	NT	Homo sapiens solute carrier family 2 (facilitated glucose transporter), member 9 (SLC2A9), mRNA
6222	19277	32431	122.9	6.0E-51	X01788.1	NT	Human hemoglobin related (Hpr) gene exon 3
6233	19287	32445	9.71	6.0E-51	AF070083.1	NT	Homo sapiens mitogen-activated protein kinase kinase 1 (MKK4) gene, exon 4
6233	19287	32446	9.71	6.0E-51	AF070083.1	NT	Homo sapiens mitogen-activated protein kinase kinase 1 (MKK4) gene, exon 4
7066	20272	33528	1.03	6.0E-51	4506736	NT	Homo sapiens ribosomal protein S6 kinase, 70kD, polypeptide 1 (RPS6KB1), mRNA
7219	20219	33456	0.72	6.0E-51	11418751	NT	Homo sapiens non-kinase Cdc42 effector protein SPEC2 (LOC56990), mRNA
7301	18470	31292	1.92	6.0E-51	11428665	NT	Homo sapiens cerebral cell adhesion molecule (LOC51148), mRNA
9680	22603	35978	0.73	6.0E-51	11428525	NT	Homo sapiens hypothetical protein FLJ11042 (FLJ11042), mRNA
9680	22603	35979	0.73	6.0E-51	11428525	NT	Homo sapiens hypothetical protein FLJ11042 (FLJ11042), mRNA
10208	23093	36499	1.65	6.0E-51	7661535	NT	Homo sapiens B9 protein (B9), mRNA
10282	23172	36584	0.78	6.0E-51	U50093.1	NT	Human ankyrin (ANK1) gene, exon 2
11703	24605	38080	1.67	6.0E-51	11526289	NT	Homo sapiens interleukin 17 receptor (IL17R), mRNA
11960	24803	38301	1.4	6.0E-51	5453949	NT	Homo sapiens protein phosphatase 2, regulatory subunit B (B59), alpha isoform (PPP2R5A), mRNA
11960	24803	38302	1.4	6.0E-51	5453949	NT	Homo sapiens protein phosphatase 2, regulatory subunit B (B59), alpha isoform (PPP2R5A), mRNA
819	13873	26810	7.71	6.0E-51	AL163203.2	NT	Homo sapiens chromosome 21 segment HS21C003
829	13884	26822	1.69	5.0E-51	4507500	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1), mRNA
1018	15890	27010	1	5.0E-51	AL133204.1	NT	Navel human gene mapping to chromosome X
1630	14660	27623	1.06	5.0E-51	5031980	NT	Homo sapiens 26S proteasome-associated pad1 homolog (POH1), mRNA
2834	15632	28629	11.15	5.0E-51	AJ007558.1	NT	Homo sapiens mRNA for nucleoporin 155



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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4022	17049	26938	1.37	5.0E-51	M30938.1	NT	Human Ku (p70/p80) subunit mRNA, complete cds
4022	17049	26939	1.37	5.0E-51	M30938.1	NT	Human Ku (p70/p80) subunit mRNA, complete cds
5208	18197	31040	1.46	5.0E-51	AB037632.1	NT	Homo sapiens mRNA for KIAA1411 protein, partial cde
11726	24629	38108	4.77	5.0E-51	5803135	NT	Homo sapiens RNA binding motif protein 3 (RBM3), mRNA
139	13241	26180	13.51	3.0E-51	AI587348.1	EST_HUMAN	tr81c09.x1 NCL CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2224720 3' similar to gb:M26326 KERATIN, TYPE I CYTOSKELETAL 18 (HUMAN);
1204	14243	27184	39.92	3.0E-51	AI587348.1	EST_HUMAN	tr81c09.x1 NCL CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2224720 3' similar to gb:M26326 KERATIN, TYPE I CYTOSKELETAL 18 (HUMAN);
4434	17445	30305	2.75	3.0E-51	AL159142.1	NT	Novel human gene mapping to chromosome 22
8014	20681	34249	1.88	3.0E-51	R15914.1	EST_HUMAN	ya47c08.r1 Soares Infant brain 1N1B Homo sapiens cDNA clone IMAGE:53233 5' similar to gb:M14123_cds4 RETROVIRUS-RELATED POL POLYPROTEIN (HUMAN); contains LTR5 repetitive element;
9398	22328		3.71	3.0E-51	M29063.1	NT	Human hnRNP C2 protein mRNA
12851	25452		2.17	3.0E-51	AF003528.1	NT	Homo sapiens X-linked ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions
387	13471	26389	1.68	2.0E-51	4507788	NT	Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A) mRNA
712	13771	26687	1.61	2.0E-51	BE391063.1	EST_HUMAN	601285694F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3607463 5'
712	13771	26688	1.61	2.0E-51	BE391063.1	EST_HUMAN	601285694F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3607463 5'
1714	14742	27711	9.09	2.0E-51	AA233352.1	EST_HUMAN	z30a05.r1 Stralagene NT2 neuronal precursor 937230 Homo sapiens cDNA clone IMAGE:684880 5' similar to TR:Q233226 G233226 RTVL-H PROTEIN; contains LTR7.3 LTR7 repetitive element;
3785	16823	29713	3.81	2.0E-51	AI492415.1	EST_HUMAN	tr27q03.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2131732 3'
4610	17619	30480	0.74	2.0E-51	AW137826.1	EST_HUMAN	UI-H-B11-adj-d-02-0-UI.s1 NCL CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2716851 3'
5388	18370	31209	0.68	2.0E-51	AI381520.1	EST_HUMAN	tr76c08.x1 Soares NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2092622 3' similar to TR:P93107 P93107 PF20;
5624	18700	31598	0.48	2.0E-51	AI732851.1	EST_HUMAN	ob34f09.x5 NCL CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1325609 3' similar to SW:NME1_MOUSE P35436 GLUTAMATE (NMDA) RECEPTOR SUBUNIT EPSILON 1 PRECURSOR;
5624	18700	31599	0.48	2.0E-51	AI732851.1	EST_HUMAN	ob34f09.x5 NCL CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1325609 3' similar to SW:NME1_MOUSE P35436 GLUTAMATE (NMDA) RECEPTOR SUBUNIT EPSILON 1 PRECURSOR;
6249	19301	32461	3.15	2.0E-51	BE782016.1	EST_HUMAN	601470446F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3873563 5'
7693	20626		0.76	2.0E-51	AF219927.1	NT	Homo sapiens diacylglycerol kinase 1a (DGK1) gene, exon 23
7861	20788	34091	0.88	2.0E-51	7662349	NT	Homo sapiens cell recognition molecule Caspr2 (KIAA0868), mRNA
9256	22184	35539	2.11	2.0E-51	BE901894.1	EST_HUMAN	601676787F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3959613 5'
9256	22184	35540	2.11	2.0E-51	BE901894.1	EST_HUMAN	601676787F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3959613 5'

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
9586	22512	35875	0.97	2.0E-51	11037064	NT	Homo sapiens disrupted in schizophrenia 1 (DISC1), mRNA
10043	22859	36347	2.08	2.0E-51	A1917078.1	EST_HUMAN	te74a07.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2236980 3' similar to SW:TRKC_HUMAN
10130	23021	36416	7.06	2.0E-51	BE165980.1	EST_HUMAN	Q16288 NT-3 GROWTH FACTOR RECEPTOR PRECURSOR ;
10146	23036	36434	0.65	2.0E-51	AB007928.1	NT	MR3-HT0487-150200-113-g01 HT0487 Homo sapiens cDNA
10914	23798	37228	1.86	2.0E-51	AV682474.1	EST_HUMAN	Homo sapiens mRNA for KIAA0457 protein, peritall cds
10951	23835	37262	1.14	2.0E-51	AA378559.1	EST_HUMAN	AV682474 GKB Homo sapiens cDNA clone GKBAGF05 5'
11770	18700	31598	7.84	2.0E-51	A1732851.1	EST_HUMAN	EST191288 Synovial sarcoma Homo sapiens cDNA 5' end
11770	18700	31599	7.84	2.0E-51	A1732851.1	EST_HUMAN	0534103.x5 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1325609 3' similar to SW:NME1_MOUSE
12843	25455	31779	1.81	2.0E-51		NT	P35436 GLUTAMATE (NMDA) RECEPTOR SUBUNIT EPSILON 1 PRECURSOR ;
118	13226	26138	14.5	1.0E-51	4503523	EST_HUMAN	0534103.x5 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1325609 3' similar to SW:NME1_MOUSE
1511	14542		15.85	1.0E-51	AV742248.1	EST_HUMAN	P35436 GLUTAMATE (NMDA) RECEPTOR SUBUNIT EPSILON 1 PRECURSOR ;
4515	17524	30389	1.8	1.0E-51	4759071	NT	Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4), mRNA
4515	17524	30390	1.8	1.0E-51	4759071	NT	Homo sapiens eukaryotic translation initiation factor 4A, isoform 1 (EIF4A1) mRNA
5574	18652	31530	3.19	1.0E-51	T18862.1	EST_HUMAN	AV742248 CB Homo sapiens cDNA clone CBFBCC12 5'
8098	21010	34336	0.91	1.0E-51	A1572532.1	EST_HUMAN	Homo sapiens small inducible cytokine subfamily A (Cys-Cys), member 15 (SCYA15) mRNA
8482	21413	34750	0.94	1.0E-51	BF434359.1	EST_HUMAN	b12056t Teelis 1 Homo sapiens cDNA clone b12056
12191	26995		2.17	1.0E-51	AV760590.1	EST_HUMAN	te39g02.x1 Soares_NHHMPu_S1 Homo sapiens cDNA clone IMAGE:2089108 3'
11130	24060	37506	1.71	9.0E-52	R91638.1	EST_HUMAN	768602.x1 NCI_CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3644091 3' similar to TR:P87892 P87892
11130	24060	37507	1.71	9.0E-52	R91638.1	EST_HUMAN	PROTEASE ;
12643	25319		7.48	9.0E-52	AA777621.1	EST_HUMAN	AV760590 MDS Homo sapiens cDNA clone MDSBB02 5'
162	13263	26181	6.39	9.0E-52	AA720574.1	EST_HUMAN	Y110H04.r1 Soares fetal liver spleen cDNA clone IMAGE:196567 5' similar to
1515	14546	27508	1.32	8.0E-52	X84900.1	NT	SP:YGAF_ECOLI_P37339 HYPOTHETICAL PROTEIN IN GAPB 3'REGION ;
1681	14711	27673	2.22	8.0E-52		NT	Y110H04.r1 Soares fetal liver spleen cDNA clone IMAGE:196567 5' similar to
							SP:YGAF_ECOLI_P37339 HYPOTHETICAL PROTEIN IN GAPB 3'REGION ;
							Z55a07.s1 Soares fetal liver spleen cDNA clone IMAGE:448500 3' similar to
							contains THR.t3 THR repetitive element ;
							rw21g02.s1 NCI_CGAP_GC80 Homo sapiens cDNA clone IMAGE:1241138 3' similar to contains THR.t3
							THR repetitive element ;
							H. sapiens mRNA for laminin-5, alpha3b chain
							Homo sapiens hypothetical protein FLJ13556 similar to N-myc downstream regulated 3 (FLJ13556), mRNA

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1681	14711	27674	2.22	8.0E-52	11968028	NT	Homo sapiens hypothetical protein FLJ13556 similar to N-myc downstream regulated 3 (FLJ13556), mRNA
4080	14711	27673	8.4	8.0E-52	11968028	NT	Homo sapiens hypothetical protein FLJ13556 similar to N-myc downstream regulated 3 (FLJ13556), mRNA
4080	14711	27674	8.4	8.0E-52	11968028	NT	Homo sapiens hypothetical protein FLJ13556 similar to N-myc downstream regulated 3 (FLJ13556), mRNA
7940	20862	34170	1.36	8.0E-52	11416585	NT	Homo sapiens transforming growth factor, beta-induced, 68kD (TGFB1), mRNA
7940	20862	34171	1.36	8.0E-52	11416585	NT	Homo sapiens transforming growth factor, beta-induced, 68kD (TGFB1), mRNA
9665	22492	35854	1.91	7.0E-52	W56471.1	EST_HUMAN	z659a06.r1 Soares_papillary thyroid carcinoma tumor_NbHPA Homo sapiens cDNA clone IMAGE326578 5' similar to contains Alu repetitive element;
1215	14263		0.82	6.0E-52	BE072409.1	EST_HUMAN	QV3-BT0537-271299-049-d07 BT0537 Homo sapiens cDNA
1720	14749	27716	6.03	6.0E-52	AF109907.1	NT	Homo sapiens S164 gene, partial cds; PS1 and hypothetical protein genes, complete cds; and S171 gene, partial cds
5929	18996	32115	2.45	6.0E-52	AI208794.1	EST_HUMAN	cg44f04.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1838047 3'
11657	24563	39035	1.97	6.0E-52	BE048172.1	EST_HUMAN	tz48f04.y1 NCI_CGAP_Brn52 Homo sapiens cDNA clone IMAGE:2291671 5' similar to SW:PGBM_MOUSE Q05793 BASEMENT MEMBRANE-SPECIFIC HEPARAN SULFATE PROTEOGLYCAN CORE PROTEIN PRECURSOR;
1688	14719	27880	1.1	4.0E-52	AF257318.1	NT	Homo sapiens SH3-containing protein SH3GLB1 mRNA, complete cds
1811	14836	27807	1.09	4.0E-52	4758943	NT	Homo sapiens nucleoporin 166kD (NUP155) mRNA
4001	17028	29917	0.65	4.0E-52	4807500	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
4863	17855	30720	0.86	4.0E-52	AI766814.1	EST_HUMAN	w189p02.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2400459 3'
5469	18550	31391	1.26	4.0E-52	4506132	NT	Homo sapiens phosphoribosyl pyrophosphate synthetase-associated protein 2 (PRPSAP2) mRNA
5469	18550	31392	1.26	4.0E-52	4506132	NT	Homo sapiens phosphoribosyl pyrophosphate synthetase-associated protein 2 (PRPSAP2) mRNA
8616	21547	34888	2.19	4.0E-52	BE622032.1	EST_HUMAN	601440687F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3915836 5'
9098	22027	35383	4.17	4.0E-52	11417035	NT	Homo sapiens hydroxysteroid (17-beta) dehydrogenase 4 (HSD17B4), mRNA
12485	25228		3.77	4.0E-52	11418177	NT	Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA
12850	25513		8.17	4.0E-52	AB002059.1	NT	Homo sapiens DNA for Human P2XM, complete cds
4181	17201		13.74	3.0E-52	11437042	NT	Homo sapiens hypothetical protein FLJ10675 (FLJ10675), mRNA
584	13652	29557	1.34	2.0E-52	M10978.1	NT	Human endogenous retroviral DNA (4-1), complete retroviral segment
584	13652	29558	1.34	2.0E-52	M10976.1	NT	Human endogenous retroviral DNA (4-1), complete retroviral segment
2027	16044	28039	1.17	2.0E-52	AB033075.1	NT	Homo sapiens mRNA for KIAA1249 protein, partial cds
2522	15523	28527	1.47	2.0E-52	BE207576.1	EST_HUMAN	b566b07.y1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3030421 5' similar to gb:X16493 M.musculus mRNA for Zpf-1 zinc finger protein (MOUSE);
2783	15775		11.64	2.0E-52	BF677892.1	EST_HUMAN	602084710F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4248891 5'

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Tcp Hit Descriptor
5088	18095	30942	4.53	2.0E-52	AL137188.3	NT	Novel human gene mapping to chromosome 20, similar to membrane transporters
5138	18133	30975	1.63	2.0E-52	AI141802.1	EST_HUMAN	qa56a05.s1 Soares_NHIMPu_S1 Homo sapiens cDNA clone IMAGE:1690784 3'
5138	18133	30976	1.63	2.0E-52	AI141802.1	EST_HUMAN	qa56a05.s1 Soares_NHIMPu_S1 Homo sapiens cDNA clone IMAGE:1690784 3'
5902	18971	32089	3.3	2.0E-52	AW848041.1	EST_HUMAN	IL3-CT0214-231289-053-E12 CT0214 Homo sapiens cDNA
6627	19697	32852	1.71	2.0E-52	11141868	NT	Homo sapiens interleukin 21 receptor (IL21R), mRNA
7011	20038	33271	0.95	2.0E-52	AB029004.1	NT	Homo sapiens mRNA for KIAA1081 protein, partial cds
7273	20226	33474	0.76	2.0E-52	AI792146.1	EST_HUMAN	0945d12.y6 NCI_CGAP_Br2 Homo sapiens cDNA clone IMAGE:1608311 5'
8339	21244	34577	0.64	2.0E-52	5032158	NT	Homo sapiens transducin (beta)-like 1 (TBL1) mRNA
8339	21244	34578	0.64	2.0E-52	5032158	NT	Homo sapiens transducin (beta)-like 1 (TBL1) mRNA
9212	22140	34578	7.92	2.0E-52	AF147880.1	NT	Macaca mulatta beta-tubulin mRNA, complete cds
9491	22419	35781	0.82	2.0E-52	AA778785.1	EST_HUMAN	z145g05.s1 Soares_fetal_liver_spleen_NFLS_S1 Homo sapiens cDNA clone IMAGE:453272 3'
10012	22829		1.26	2.0E-52	4793789	NT	Homo sapiens NADH dehydrogenase (ubiquinone) Fe-S protein 5 (16kD) (NADH-coenzyme Q reductase) (NDUFS5) mRNA
10816	23502	36935	5.77	2.0E-52	5730038	NT	Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA
10816	23502	36936	5.77	2.0E-52	5730038	NT	Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA
11653	24559	38029	3.32	2.0E-52	AB31462.1	EST_HUMAN	w149c04.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2406150 3' similar to contains THR.b2 THR repetitive element:
11653	24559	38030	3.32	2.0E-52	AB31462.1	EST_HUMAN	w149c04.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2406150 3' similar to contains THR.b2 THR repetitive element:
11664	24570	38046	3.19	2.0E-52	AV715377.1	EST_HUMAN	AV715377 DCB Homo sapiens cDNA clone DCBAIE03 5'
11791	24713		1.44	2.0E-52	W70260.1	EST_HUMAN	z149g12.r1 Soares_fetal_liver_NH19W Homo sapiens cDNA clone IMAGE:344038 5'
12043	24884		2.92	2.0E-52	11417990	NT	Homo sapiens LIM domain kinase 2 (LIMK2), mRNA
12317	25962	31359	14.39	2.0E-52	AW236297.1	EST_HUMAN	xm72e07.x1 NCI_CGAP_CML1 Homo sapiens cDNA clone IMAGE:2700036 3' similar to contains Alu repetitive element/contains element LTR2 repetitive element:
12684	26343		5.81	2.0E-52	AB08995.1	EST_HUMAN	wf67d05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2360649 3' similar to TR:Q16859 Q16859 CARBOXYLTERASE:
556	13625	26534	1.62	1.0E-52	AA634445.1	EST_HUMAN	zu75h12.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:743876 3'
1398	14429	27383	6.3	1.0E-52	4504026	NT	Homo sapiens glutamate-aminohydrolase (glutamine synthase) (GLUL) mRNA
2564	15563		2.01	1.0E-52	4502238	NT	Homo sapiens arylsulfatase D (ARSD), transcript variant 1, mRNA
3107	16168	29053	1.42	1.0E-52	SB1070.1	NT	pd1=reverse transcriptase homolog (retroviral element) [human, endogenous retroviral element RTVL-Hp1, Genomic, 660 nt]
5518	18595	31443	4.46	1.0E-52	M29426.1	NT	Human P-glycoprotein (MDR1) gene, exon 4
8657	18898	32892	2.18	1.0E-52	U98864.1	NT	Human PMS2 related (hPMSR2) gene, complete cds
7834	20762	34065	2.57	1.0E-52	X07292.1	NT	Human aldolase C gene for fructose-1,6-bisphosphate aldolase

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8384	21288	34820	0.45	1.0E-52	U80017.1	NT	Homo sapiens basic transcription factor 2 p44 (btf2p44) gene, partial cds, neuronal apoptosis inhibitory protein (naip) and survival motor neuron protein (smn) genes, complete cds
9034	21093		1.2	1.0E-52	AL163227.2	NT	Homo sapiens chromosome 21 segment HS21C027
9730	22655	36038	1.06	1.0E-52	AF078779.1	NT	Rattus norvegicus putative four repeat ion channel mRNA, complete cds
11048	23933		0.89	1.0E-52	AW020370.1	EST_HUMAN	di08g05.y1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:2483145 5'
11059	23943		1.24	1.0E-52	AL163202.2	NT	Homo sapiens chromosome 21 segment HS21C002
11204	24130	37578	1.87	1.0E-52	U48296.1	NT	Homo sapiens protein tyrosine phosphatase PTPCAAX1 (HPTPCAAX1) mRNA, complete cds
3856	16895	28789	0.82	9.0E-53	4505064	NT	Homo sapiens protein kinase, cAMP-dependent, regulatory, type II, beta (PRKAR2B) mRNA
4499	17509	30375	1.65	9.0E-53	AF001446.1	NT	Homo sapiens core binding factor alpha1 subunit (CBFA1) gene, exon 3
12532	25255		3.76	7.0E-53	BF238465.1	EST_HUMAN	601904771F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4132783 5'
12825	25842		9.63	7.0E-53	AI421782.1	EST_HUMAN	if44f07.x1 NCL CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2089077 3' similar to contains THR.11
4189	17209	30075	1.78	5.0E-53	4758343	NT	THR repetitive element 1
12574	25273		2.36	5.0E-53	AW813563.1	EST_HUMAN	Homo sapiens heterogeneous nuclear ribonucleoprotein C (C1/C2) (HNRPC) mRNA
52	13163	26066	1.39	4.0E-53	AL163285.2	NT	RC3-ST0197-151099-011-g10 ST0197 Homo sapiens cDNA
52	13163	26067	1.39	4.0E-53	AL163285.2	NT	Homo sapiens chromosome 21 segment HS21C085
9950	22855		0.69	4.0E-53	AI613037.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C085
10276	23166		0.9	4.0E-53	F13080.1	EST_HUMAN	ly06h04.x1 NCL CGAP_U13 Homo sapiens cDNA clone IMAGE:2278327 3'
11662	24568	38042	2.92	4.0E-53	BF128701.1	EST_HUMAN	HSC3ID041 normalized infant brain cDNA Homo sapiens cDNA clone c-3id04
11662	24568	38043	2.92	4.0E-53	BF128701.1	EST_HUMAN	601810959F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4053977 5'
2709	15703	26699	2.4	3.0E-53	AB026998.1	NT	601810959F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4053977 5'
3784	16825	29712	1.06	3.0E-53	AW050838.1	EST_HUMAN	Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds)
5610	16696	31665	1.08	3.0E-53	AF001212.1	NT	w222c07.x1 Soares_Dieckgraefe_colon_NH01 Homo sapiens cDNA clone IMAGE:2558706 3'
5820	18892	32006	1.19	3.0E-53	BE160026.1	EST_HUMAN	Homo sapiens 26S proteasome subunit 9 mRNA, complete cds
6435	19482	32657	0.8	3.0E-53	BE160026.1	EST_HUMAN	Homo sapiens MIL1 protein (MIL1), mRNA
7457	20397	33669	0.86	3.0E-53	Y10388.3	NT	QV1-HT0412-280300-123-c04 HT0412 Homo sapiens cDNA
7457	20397	33670	0.86	3.0E-53	Y10388.3	NT	H. sapiens gref gene
8879	21809	35162	11.67	3.0E-53	S72043.1	NT	H. sapiens gref gene
9418	22346	35710	0.54	3.0E-53	10835080	NT	GIF-growth inhibitory factor [human, brain, Gehrmic, 2015 nt]
9609	22535		10.53	3.0E-53	5901963	NT	Homo sapiens bone morphogenetic protein 5 (BMP5), mRNA
12858	25466	31782	4.13	3.0E-53	11417966	NT	Homo sapiens FGFRT oncogene partner (FOP), mRNA
480	13551		5.3	2.0E-53	AA366556.1	EST_HUMAN	Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA
							ESTT7625 Pancreas tumor III Homo sapiens cDNA 5' end

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2349	15357	28359	3.57	2.0E-53	U78027.1	NT	Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds
2565	15584		10.24	2.0E-53	4502316	NT	Homo sapiens ATPase, H <sup>+</sup> transporting, lysosomal (vacuolar proton pump) 31kD; Vacuolar proton-ATPase, subunit E; V-ATPase, subunit E (ATP9E), mRNA
2773	15765	28757	1.03	2.0E-53	4757816	NT	Homo sapiens core-binding factor, runt domain, alpha subunit 2; translocated to, 1; cyclin D-related (CBFA2T1) mRNA
2773	15765	28758	1.03	2.0E-53	4757815	NT	Homo sapiens core-binding factor, runt domain, alpha subunit 2; translocated to, 1; cyclin D-related (CBFA2T1) mRNA
3265	16313	28218	0.79	2.0E-53	7705687	NT	Homo sapiens leucine aminopeptidase (LOC51056), mRNA
4144	17165	30039	2.54	2.0E-53	M61873.1	NT	Human Kruppel-related DNA-binding protein (IKF34) gene, partial cds
4608	17616	30477	0.92	2.0E-53	4505862	NT	Homo sapiens SKAP55 homologue (SKAP-HOM) mRNA
5611	18697	31598	2.35	2.0E-53	BF334740.1	EST_HUMAN	PM1-CT0396-170800-001-g03 CT0396 Homo sapiens cDNA
5611	18697	31597	2.35	2.0E-53	BF334740.1	EST_HUMAN	PM1-CT0396-170800-001-g03 CT0396 Homo sapiens cDNA
8452	21384	34725	1.02	2.0E-53	AW975598.1	EST_HUMAN	EST387707 MAGE resequences, MAGN Homo sapiens cDNA
9942	22847		5.83	2.0E-53	AW245678.1	EST_HUMAN	2822665 Splice NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822665 5'
1465	14493	27457	1.4	1.0E-53	AJ271736.1	NT	Homo sapiens Xq pseudautosomal region, segment 2/2
3470	16510	29411	1.49	1.0E-53	AB028898.1	NT	Homo sapiens DNA, DLEC1 to ORC1L4 gene region, section 1/2 (DLEC1, ORC1L3, ORC1L4 genes, complete cds)
5078	18075	30924	1.17	1.0E-53	BE286388.1	EST_HUMAN	601176725F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531919 5'
6989	20015	33248	1.17	1.0E-53	BF364201.1	EST_HUMAN	CN4-NN1028-150800-549-e02 NN1028 Homo sapiens cDNA
7018	20553	33846	0.7	1.0E-53	BE012071.1	EST_HUMAN	RC5-BN1058-270400-031-D01 BN1058 Homo sapiens cDNA
8514	21445	34787	0.71	1.0E-53	AA249072.1	EST_HUMAN	ll9571.seq.F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA 5'
9634	22560	35929	6.44	1.0E-53	X79536.1	NT	H. sapiens mRNA for hnRNPcore protein A1
12311	25117	38156	2.34	1.0E-53	AW245422.1	EST_HUMAN	2822943 3prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822943 3'
9485	28827	31410	5.61	9.0E-54	4508786	NT	Homo sapiens IQ motif containing GTPase activating protein 1 (IQGAP1) mRNA
220	13319	26235	4.27	8.0E-54	BE386785.1	EST_HUMAN	601272863F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3814031 5'
1859	14881	27861	1.92	8.0E-54	4504810	NT	Homo sapiens insulin-like growth factor 2 receptor (IGF2R) mRNA
5235	17850	30717	0.85	8.0E-54	4507948	NT	Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA
5235	17850	30718	0.85	8.0E-54	4507948	NT	Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA
6160	19218	32359	21.39	8.0E-54	6005700	NT	Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 8 (ABCAB8), mRNA
405	13518	26439	1.25	7.0E-54	AA812537.1	EST_HUMAN	at79c12.s1 Soares_testis_NHT Homo sapiens cDNA clone 1377046 3' similar to contains MER30.13 MER30 repetitive element
1854	14876	27856	1.68	7.0E-54	Y16946.1	NT	Homo sapiens mRNA for monocyte chemotactic protein-2

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2220	15230	28236	6.73	7.0E-54	N27177.1	EST_HUMAN	yw38d12.s1 Soares_placenta_8to9weeks_2NbtHP8tgW Homo sapiens cDNA clone IMAGE:257399 3' similar to contains LTR7.b3 LTR7 repetitive element;
10627	23513	36946	2.38	7.0E-54	11417222	NT	Homo sapiens similar to nuclear factor related to kappa B binding protein (H. sapiens) (LOC693182), mRNA qb67g03.x1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:1705204 3' similar to contains ORF.t11 OFR repetitive element;
11738	24638		3.8	7.0E-54	AI160189.1	EST_HUMAN	Homo sapiens jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene
12203	25038	38540	1.44	7.0E-54	AF111167.2	NT	Homo sapiens jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene
12203	25038	38541	1.44	7.0E-54	AF111167.2	NT	Homo sapiens jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene
24	13140	26028	1.73	6.0E-54	AB003618.1	NT	Homo sapiens DNA for MICB, exon 4, 5 and partial cds
406	13519	26440	1.04	6.0E-54	8922148	NT	Homo sapiens hypothetical protein DKFZp434M035 (DKFZp434M035), mRNA
406	13519	26441	1.04	6.0E-54	8922148	NT	Homo sapiens hypothetical protein DKFZp434M035 (DKFZp434M035), mRNA
3327	16373	26274	1.02	6.0E-54	8922148	NT	Homo sapiens hypothetical protein DKFZp434M035 (DKFZp434M035), mRNA
3597	16634	26539	0.94	6.0E-54	AL163247.2	NT	Homo sapiens chromosome 21 segment HS21C047
4090	17115	29993	3.1	6.0E-54	4502872	NT	Homo sapiens chloride channel 6 (CLCN6) mRNA
4573	17581	30443	1.05	6.0E-54	AV754746.1	EST_HUMAN	AV754746 TP Homo sapiens cDNA clone TPQAAC10 5'
4893	17892	30758	0.97	6.0E-54	AV724885.1	EST_HUMAN	AV724885 HTB Homo sapiens cDNA clone HTBACE02 5'
5121	17880		1.98	6.0E-54	Y08846.1	NT	H. sapiens shc pseudogene, p86 isoform
5353	18336		1.24	6.0E-54	AL163282.2	NT	Homo sapiens chromosome 21 segment HS21C082
2165	15177	26183	1.2	6.0E-54	P51623	SWISSPROT	ZINC FINGER PROTEIN 84 (ZINC FINGER PROTEIN HPF2)
194	13292		47.94	4.0E-54	AF110103.1	NT	Tupala belangeri beta-actin mRNA, partial cds
982	14033	26976	46.51	4.0E-54	AA306764.1	EST_HUMAN	EST177696 Jurkat T-cells VI Homo sapiens cDNA 5' end similar to glyceraldehyde-3-phosphate dehydrogenase
1827	14860	27827	2.37	4.0E-54	D38521.1	NT	Human mRNA for KIAA0077 gene, partial cds
1827	14850	27828	2.37	4.0E-54	D38521.1	NT	Human mRNA for KIAA0077 gene, partial cds
3248	16290		2.63	4.0E-54	AI935086.1	EST_HUMAN	wd26d11.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:3461017 5'
7886	20619		0.53	4.0E-54	BE544889.1	EST_HUMAN	O02711 PRO-POL-DUTPASE POLYPROTEIN;
96	13209	26121	8.58	3.0E-54	AA313497.1	EST_HUMAN	601076004F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3461017 5'
1693	14624		0.97	3.0E-54	AW515742.1	EST_HUMAN	EST185971 Odon carcinoma (HCO) cell line Homo sapiens cDNA 5' end
2604	15602	28596	1.4	3.0E-54	AL110383.1	EST_HUMAN	hd87g08.x1 NCI_CGAP_G06 Homo sapiens cDNA clone IMAGE:2916542 3'
2670	15666		1.49	3.0E-54	AI908757.1	EST_HUMAN	DKFZp434E0731.t1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434E0731 5'
6122	19181	32316	1.4	3.0E-54	4502434	NT	IL-BT189-190399-007 BT189 Homo sapiens cDNA Homo sapiens BMX non-receptor tyrosine kinase (BMX) mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
7786	20715	34017	1.44	3.0E-54	AA844081.1	EST_HUMAN	af2208.s1 Soares_papillary_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1388270 3'
7786	20715	34018	1.44	3.0E-54	AA844081.1	EST_HUMAN	af2208.s1 Soares_papillary_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1388270 3'
8280	21185	34523	0.41	3.0E-54	AI742022.1	EST_HUMAN	wg44b11.x1 Soares_NSF_F8_gw_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2387033 3'
11464	24378		1.59	3.0E-54	11434808	NT	Homo sapiens golgi autoantigen, golgin subfamily a, 5 (GOLGA5), mRNA
11527	24437	37895	4.36	3.0E-54	BF345600.1	EST_HUMAN	602019408F1 NCL CGAP_Bn87 Homo sapiens cDNA clone IMAGE:4155121 5'
11807	24728	38220	2.78	3.0E-54	AA393382.1	EST_HUMAN	z170f12.1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:727727 5' similar to TR:G191315
12408	25177	31876	2.17	3.0E-54	AW954559.1	EST_HUMAN	G191315 ANDROGEN-DEPENDENT EXPRESSED PROTEIN. ;
12445	25922		2.84	3.0E-54	AW748685.1	EST_HUMAN	EST366629 MAGE resequences, MAGC Homo sapiens cDNA
665	13727	26837	21.68	2.0E-54	5031900	NT	RC1-BT0313-131199-011-b09 BT0313 Homo sapiens cDNA
1392	14423	27377	1.23	2.0E-54	4507164	NT	Homo sapiens killer cell lectin-like receptor subfamily G, member 1 (KLRG1), mRNA
1569	14600	27559	1.14	2.0E-54	AA655008.1	EST_HUMAN	Homo sapiens nuclear antigen Sp100 (SP100) mRNA
2569	15567	28567	1.04	2.0E-54	AW163175.1	EST_HUMAN	n78a09.s1 NCL CGAP_Prd Homo sapiens cDNA clone IMAGE:1204600 similar to contains element L1 repetitive element ;
2642	15638	28537	3.64	2.0E-54	AL163210.2	NT	eu32g03.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783764 5' similar to SW:CU1_1_HUMAN Q13916 CULLIN HOMOLOG 1 ;
2937	15990	28892	1.86	2.0E-54	AW067624.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C010
3607	16644		1.79	2.0E-54	AA532925.1	EST_HUMAN	TR:Q62084_Q62084 PHOSPHOLIPASE C NEIGHBORING ;
4300	17314		1.6	2.0E-54	4502942	NT	n145g09.s1 NCL CGAP_Prd Homo sapiens cDNA clone IMAGE:996488 similar to gb:X53777 60S
4550	17559		1.6	2.0E-54	AF208181.1	NT	RIBOSOMAL PROTEIN L23 (HUMAN);
5662	18736	31644	7.2	2.0E-54	4759069	NT	Homo sapiens chaperonin containing T-complex subunit 6 (CCT6) mRNA
5797	18869	31978	1.22	2.0E-54	BE047884.1	EST_HUMAN	Homo sapiens syncytin precursor, mRNA, complete cds
5970	19036	32157	3.72	2.0E-54	11426657	NT	Homo sapiens small inducible cytokine subfamily A (Cys-Cys), member 14 (SCYA14) mRNA
6076	19137	32271	15.01	2.0E-54	AB046811.1	NT	tt43c11.y1 NCL CGAP_Bn52 Homo sapiens cDNA clone IMAGE:2291348 5'
6078	19137	32272	15.01	2.0E-54	AB046811.1	NT	Homo sapiens mRNA for KIAA1591 protein, partial cds
6951	19880	33204	0.78	2.0E-54	AF008915.1	NT	Homo sapiens EVI5 homolog mRNA, complete cds
7122	20326	33590	0.67	2.0E-54	AB023212.1	NT	Homo sapiens mRNA for KIAA0995 protein, partial cds
7122	20326	33591	0.67	2.0E-54	AB023212.1	NT	Homo sapiens mRNA for KIAA0995 protein, partial cds
7483	20423	33703	9.24	2.0E-54	11426544	NT	Homo sapiens neurofibromin 1 (neurofibromatosis, von Recklinghausen disease, Watson disease) (NF1), mRNA
10155	23046	36445	3.99	2.0E-54	AB001025.1	NT	Homo sapiens mRNA for brain tyrosine receptor, complete cds
10514	23401	36812	1.18	2.0E-54	11428127	NT	Homo sapiens Janus kinase 2 (a protein tyrosine kinase) (JAK2), mRNA



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Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
10621	23507	36941	0.99	2.0E-54	11416762	NT	Homo sapiens serologically defined colon cancer antigen 10 (SDCCAG10), mRNA
10621	23507	36942	0.99	2.0E-54	11416762	NT	Homo sapiens serologically defined colon cancer antigen 10 (SDCCAG10), mRNA
11463	19980	33204	1.41	2.0E-54	AF008915.1	NT	Homo sapiens EVI5 homolog mRNA, complete cds
12148	24088		2.35	2.0E-54	7657454	NT	Homo sapiens pescadillo (zebrafish) homolog 1, containing BRCT domain (PES1), mRNA
12666	25469	31761	1.91	2.0E-54	8567387	NT	Homo sapiens period (Drosophila) homolog 3 (PER3), mRNA
4577	17585		1.48	1.0E-54	BF315418.1	EST_HUMAN	601899230F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4128535 5'
-13021	25564		2.58	1.0E-54	AU077341.1	EST_HUMAN	AU077341 Sugano cDNA library Homo sapiens cDNA clone Zv6C880 similar to 5'-end region of Human gamma-glutamyl transpeptidase mRNA, 5' end
10845	23731	37154	1.03	9.0E-55	BE081489.1	EST_HUMAN	QV2-BT0635-180400-143-H12 B T0635 Homo sapiens cDNA
1342	14375		0.7	8.0E-55	Y07829.2	NT	Homo sapiens RFB30 gene for RING finger protein
1346	14378		3.23	8.0E-55	Y07829.2	NT	Homo sapiens RFB30 gene for RING finger protein
11641	24547		1.85	8.0E-55	AW409714.1	EST_HUMAN	fh02a02.x1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2960907 5'
9362	22290		0.81	7.0E-55	AW103839.1	EST_HUMAN	kd70c02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2603522 3' similar to TR:060365
9724	22649	36031	1.59	7.0E-55	AA89881.1	EST_HUMAN	Q60365 FOS39554.1.1
9756	22680	36065	1.74	7.0E-55	AU139909.1	EST_HUMAN	ak28a11.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1407260 3'
11658	24584	38038	10.05	7.0E-55	AI551056.1	EST_HUMAN	AU139909 PLACE1 Homo sapiens cDNA clone PLACE1011576 5'
11659	24594	38037	10.08	7.0E-55	AI551056.1	EST_HUMAN	iq29f09.x1 NCI_CGAP_U11 Homo sapiens cDNA clone IMAGE:2210249 3'
12749	25732	31669	1.52	7.0E-55	BE670608.1	EST_HUMAN	iq29f09.x1 NCI_CGAP_U11 Homo sapiens cDNA clone IMAGE:2210249 3'
12999	26859		5.96	7.0E-55	H23396.1	EST_HUMAN	7e37c01.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284640 3'
11946	24790	36288	1.84	6.0E-55	AB040934.1	NT	ym57g07.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:62444 5'
1793	14821	27788	1.49	5.0E-55	AA704971.1	EST_HUMAN	Homo sapiens mRNA for KIAA1501 protein, partial cds
1795	14821	27789	1.49	5.0E-55	AA704971.1	EST_HUMAN	z95b09.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:462617 3'
4884	17883	30749	0.95	5.0E-55	AW206021.1	EST_HUMAN	z95b09.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:462617 3'
6819	19852	33063	3.38	5.0E-55	4502240	NT	UI-H-B11-ay-g-09-0-U1.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2723536 3'
6819	19852	33084	3.38	5.0E-55	4502240	NT	Homo sapiens arylsulfatase E (chondrodysplasia punctata 1) (ARSE), mRNA
6861	25659	33214	1.92	5.0E-55	4505952	NT	Homo sapiens arylsulfatase E (chondrodysplasia punctata 1) (ARSE), mRNA
6961	25659	33215	1.92	5.0E-55	4505952	NT	Homo sapiens paraoxonase 2 (PON2) mRNA, and translated products
7388	20381	33650	0.61	5.0E-55	7382477	NT	Homo sapiens paraoxonase 2 (PON2) mRNA, and translated products
7675	20609	33908	0.68	5.0E-55	11434422	NT	Homo sapiens Rho GTPase activating protein 5 (ARHGAP5), transcript variant 5, mRNA
9598	22522	35886	2.83	6.0E-55	4506302	NT	Homo sapiens speckle-type POZ protein (SPOP), mRNA
9859	22774		1.69	5.0E-55	BE064386.1	EST_HUMAN	Homo sapiens protein tyrosine phosphatase, receptor type, alpha polypeptide (PTPRA) mRNA
10540	23426	36844	1.58	5.0E-55	AB014511.1	NT	RC4-BT0310-110300-015-H10 B T0310 Homo sapiens cDNA
10540	23426	36845	1.58	5.0E-55	AB014511.1	NT	Homo sapiens mRNA for KIAA0611 protein, partial cds
10540	23426	36845	1.58	5.0E-55	AB014511.1	NT	Homo sapiens mRNA for KIAA0611 protein, partial cds

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
10718	23604	37033	1.28	5.0E-55	5453765	NT	Homo sapiens nel (chicken)-like 2 (NELL2), mRNA
12478	25223		3.48	5.0E-55	11417972	NT	Homo sapiens pascadillo (zebrafish) homolog 1, containing BRCT domain (PES1), mRNA
58	15885	26075	1.22	4.0E-55	AW957994.1	EST_HUMAN	EST370084 IMAGE resequences, IMAGE Homo sapiens cDNA
695	13755	26672	37.86	4.0E-55	4826073	NT	Homo sapiens RNA binding motif protein, Y chromosome, family 1, member A1 (RBM1A1) mRNA
1535	14565		1.88	4.0E-55	BF061411.1	EST_HUMAN	7152b10x1 Soares NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3390043 3' similar to contains L1.13 L1 repetitive element;
2038	15055	28054	1.13	4.0E-55	4506180	NT	Homo sapiens proteasome (prosome, macropain) subunit, alpha type, 2 (PSMA2) mRNA
2038	15055	28055	1.13	4.0E-55	4506180	NT	Homo sapiens proteasome (prosome, macropain) subunit, alpha type, 2 (PSMA2) mRNA
2098	15112	28116	6.85	4.0E-55	4503314	NT	Homo sapiens diacylglycerol kinase, gamma (DGKG) mRNA
2098	15112	28116	6.85	4.0E-55	4503314	NT	Homo sapiens diacylglycerol kinase, gamma (DGKG) mRNA
2331	15339	28344	2.26	4.0E-55	4507764	NT	Homo sapiens ubiquitin-conjugating enzyme E2 variant 1 (UBE2V1) mRNA
2829	15627		1.39	4.0E-55	AJ271735.1	NT	Homo sapiens Xq pseudautosomal region, segment 1/2
8918	21843		11.14	4.0E-55	AL163210.2	NT	Homo sapiens chromosome 21 segment HS21C010
11678	24592		2.36	4.0E-55	W28189.1	EST_HUMAN	43c5 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA
12407	25179		6.99	4.0E-55	BF303941.1	EST_HUMAN	60188657F2 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4120338 5'
8883	19913	33128	0.79	3.0E-55	AA077158.1	EST_HUMAN	7B09A09 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B09A09
12352	25143		2.13	3.0E-55	BE178519.1	EST_HUMAN	PM1-HT0603-090300-001-g08 HT0603 Homo sapiens cDNA
13035	25573		5.4	3.0E-55	AL163284.2	NT	Homo sapiens chromosome 21 segment HS21C084
398	13480	26400	1.76	2.0E-55	X57147.1	NT	Human endogenous retrovirus pHE.1 (ERV9)
573	13641		1.09	2.0E-55	MT0976.1	NT	Human endogenous retroviral DNA (4-1), complete retroviral segment
872	13734	20040	2.14	2.0E-55	4507296	NT	Homo sapiens syntaxin-binding protein 1 (STXBP1) mRNA, and translated products
2989	16051	28955	0.86	2.0E-55		NT	Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A) mRNA
4889	17887	30762	1.77	2.0E-55	BE719986.1	EST_HUMAN	GM1-HT0876-150800-357-g03 HT0876 Homo sapiens cDNA
7928	28680	34164	0.75	2.0E-55	AW501988.1	EST_HUMAN	UI-HF-BND-ake-f-06-0-UI.1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078275 5'
9617	22543	35913	0.52	2.0E-55	BF224452.1	EST_HUMAN	hr76108.x1 NCI CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134463 3'
9617	22543	35914	0.52	2.0E-55	BF224452.1	EST_HUMAN	hr76108.x1 NCI CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134463 3'
9703	22628		5.6	2.0E-55	AI002836.1	EST_HUMAN	am89h05.s1 Stralagene schizo brain S11 Homo sapiens cDNA clone IMAGE:1684185 3' similar to contains THR.b2 THR repetitive element;
9783	22707		0.71	2.0E-55	BE007959.1	EST_HUMAN	QV0-BN0147-280400-213-q06 BN0147 Homo sapiens cDNA
11389	24305	37762	1.77	2.0E-55	AU119344.1	EST_HUMAN	AU119344 HEMBA1 Homo sapiens cDNA clone HEMBA1005883 5'
99	13212	28124	1.25	1.0E-55	4505060	NT	Homo sapiens mannose-6-phosphate receptor (cation dependent) (M6PR) mRNA
202	13301	28216	29.8	1.0E-55	U09823.1	NT	Oryctolagus cuniculus New Zealand white elongation factor 1 alpha (Rabelia2) mRNA, complete cds

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
596	13663	26565	0.66	1.0E-55	AI026718.1	EST_HUMAN	018509.X1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1844160 3'
1177	14217	27159	3.79	1.0E-55	AB020710.1	NT	Homo sapiens mRNA for KIAA0903 protein, partial cds
1985	14983	27968	2.32	1.0E-55	BE277861.1	EST_HUMAN	601120116F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2967027 5'
1985	14983	27967	2.32	1.0E-55	BE277861.1	EST_HUMAN	601120116F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2967027 5'
2347	15356		7.77	1.0E-55	5903174	NT	Homo sapiens SMA3 (SMA3), mRNA
2361	15859	26372	1.04	1.0E-55	AF000690.1	NT	Homo sapiens testis-specific Testis Transcript Y 1 (TTY1) mRNA, partial cds
2543	15943	28541	26.29	1.0E-55	X13111.1	NT	Human mRNA for HLA-A*11E, a MHC class I molecule (major histocompatibility complex)
2588	15586	28580	5.22	1.0E-55	AB007866.2	NT	Homo sapiens mRNA for KIAA0406 protein, partial cds
2589	15596	28581	5.22	1.0E-55	AB007866.2	NT	Homo sapiens mRNA for KIAA0406 protein, partial cds
2654	15649	28648	2.35	1.0E-55	L54057.1	NT	Homo sapiens CLP mRNA, partial cds
3469	16509	29410	1.29	1.0E-55	W28189.1	EST_HUMAN	43c5 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA
3642	16678	29578	1.03	1.0E-55	7661675	NT	Homo sapiens DKFZP586G1219 protein (DKFZP586G1219), mRNA
4075	17101	29990	4.49	1.0E-55	AL163267.2	NT	Homo sapiens chromosome 21 segment HS21C067
4397	17410	30278	0.98	1.0E-55	AL163210.2	NT	Homo sapiens chromosome 21 segment HS21C010
4843	17844		1.14	1.0E-55	N77261.1	EST_HUMAN	yw44903.r1 Soares fetal liver spleen 1N1FLS Homo sapiens cDNA clone IMAGE:245620 5'
4942	17841	30798	1.42	1.0E-55	AB037163.1	NT	Homo sapiens DSCR5b mRNA, complete cds
4942	17941	30799	1.42	1.0E-55	AB037163.1	NT	Homo sapiens DSCR5b mRNA, complete cds
5397	18340	31188	0.91	1.0E-55	BE077188.1	EST_HUMAN	RC5-BT0605-160200-031-B11 BT0605 Homo sapiens cDNA
5687	18760	31694	30.3	1.0E-55	AF119856.1	NT	Homo sapiens PRO1851 mRNA, complete cds
5623	19597	32750	8.54	1.0E-55	11433046	NT	Homo sapiens hect domain and RLD 2 (HERC2), mRNA
5623	19597	32761	6.54	1.0E-55	11433046	NT	Homo sapiens hect domain and RLD 2 (HERC2), mRNA
7435	20132		0.56	1.0E-55	AF199420.1	NT	Homo sapiens F-box protein FBL4 (FBL4) mRNA, complete cds
8013	20930	34248	0.46	1.0E-55	4503242	NT	Homo sapiens cytochrome P450, 51 (lencosterol 14-alpha-demethylase) (CYP51), mRNA
8568	21499	34842	1.32	1.0E-55	11432994	NT	Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2), mRNA
8568	21499	34843	1.32	1.0E-55	11432994	NT	Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2), mRNA
8660	21591	34928	1.16	1.0E-55	AF224492.1	NT	Homo sapiens phospholipid scramblase 1 gene, complete cds
8660	21591	34930	1.16	1.0E-55	AF224492.1	NT	Homo sapiens phospholipid scramblase 1 gene, complete cds
11349	24267	37708	1.48	1.0E-55	AL163210.2	NT	Homo sapiens chromosome 21 segment HS21C010
11349	24267	37709	1.48	1.0E-55	AL163210.2	NT	Homo sapiens chromosome 21 segment HS21C010
11881	23981	37419	1.8	1.0E-55	U50950.1	NT	Human infant brain unknown product mRNA, complete cds
11899	23999	37437	1.68	1.0E-56	T10045.1	EST_HUMAN	seq1575 b4HB3MA C08-HAP-F1 Homo sapiens cDNA clone b4HB3MA-C08-HAP-F161 5' similar to similar to Chinese Hamster DHFR-coamplified protein mRNA
12008	24850	38349	1.41	1.0E-55	10567821	NT	Homo sapiens DNA-binding protein (LOC56242), mRNA
7757	20687	33987	1.89	8.0E-56	BE379074.1	EST_HUMAN	601237702F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3609562 5'

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2782	15773	28768	8.27	7.0E-56	H19934.1	EST_HUMAN	Yn62g03.r1 Soares adult brain N2b5fH55Y Homo sapiens cDNA clone IMAGE:173044 5' similar to contains THR repetitive element:
8089	21001	34323	2.29	7.0E-56	AW361213.1	EST_HUMAN	RC1-CT0252-231089-013-b07 CT0252 Homo sapiens cDNA
8089	21001	34324	2.29	7.0E-56	AW361213.1	EST_HUMAN	RC1-CT0252-231089-013-b07 CT0252 Homo sapiens cDNA
1718	14748	27714	3.14	6.0E-56	AW097712.1	EST_HUMAN	RC3-BN0053-170200-011-h01 BN0053 Homo sapiens cDNA
9704	22629	35007	0.71	5.0E-56	AW016507.1	EST_HUMAN	U14-B10p-aau-a-05-0-U1.s1 NCI_CGAP_Sub2 Homo sapiens cDNA clone IMAGE:2710544 3'
10876	23762		1.63	5.0E-56	W28189.1	EST_HUMAN	43c5 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA
12584	25911	31368	3.32	6.0E-56	H55089.1	EST_HUMAN	CHR220038 Chromosome 22 exon Homo sapiens cDNA clone C22_55 5'
29	13145	26032	7.23	4.0E-56	AF141349.1	NT	Homo sapiens beta-tubulin mRNA, complete cds
29	13145	26033	7.23	4.0E-56	AF141349.1	NT	Homo sapiens beta-tubulin mRNA, complete cds
2758	15749	28744	4.1	4.0E-56	4507728	NT	Homo sapiens tubulin, beta polypeptide (TUBB) mRNA
2758	15749	28745	4.1	4.0E-56	4507728	NT	Homo sapiens tubulin, beta polypeptide (TUBB) mRNA
2859	13618	26526	2.73	4.0E-56	AF003528.1	NT	Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions
2879	15653	28652	1.18	4.0E-56	AI632488.1	EST_HUMAN	W609f08.x1 NCI_CGAP_G08 Homo sapiens cDNA clone IMAGE:2305191 3' similar to SW:DCOR_MUSPA
2879	16653	28653	1.18	4.0E-56	AI632488.1	EST_HUMAN	P27119 ORNITHINE DECARBOXYLASE ;
6507	19551	32731	5.84	4.0E-56	AF217508.1	NT	W609f08.x1 NCI_CGAP_G08 Homo sapiens cDNA clone IMAGE:2306181 3' similar to SW:DCOR_MUSPA
6507	19551	32732	5.84	4.0E-56	AF217508.1	NT	P27119 ORNITHINE DECARBOXYLASE ;
10984	23868	37206	1.4	4.0E-56	AF043349.1	NT	Homo sapiens uncharacterized bone marrow protein BM031 mRNA, complete cds
11360	24278	37719	8.51	4.0E-56	AI498066.1	EST_HUMAN	Homo sapiens lymphocyte-specific protein 1 (LSP1) gene, LSP1-7 allele, partial cds
11360	24278	37720	8.51	4.0E-56	AI498066.1	EST_HUMAN	tm85g12.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2163046 3'
1370	14402	27356	2.44	3.0E-56		NT	tm85g12.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2163046 3'
1789	14815	27784	1.15	3.0E-56	6912743	NT	Homo sapiens hypothetical protein PRO1304 (PRO1304), mRNA
2164	15176	28182	0.93	3.0E-56	6912697	NT	Homo sapiens 5'-3' exoribonuclease 2 (XRN2), mRNA
3170	16220	29110	1.93	3.0E-56	AA325826.1	EST_HUMAN	Homo sapiens oncogene TC21 (TC21), mRNA
3170	16220	29111	1.93	3.0E-56	AA325826.1	EST_HUMAN	EST28889 Cerebellum II Homo sapiens cDNA 5' end
3908	16937		1.44	3.0E-56	AF055068.1	NT	EST28889 Cerebellum II Homo sapiens cDNA 5' end
3992	17016	29909	0.79	3.0E-56	BE393512.1	EST_HUMAN	Homo sapiens MHC class 1 region
4495	17505	30371	0.67	3.0E-56	7657042	NT	601310203F1 NIH_MGC 44 Homo sapiens cDNA clone IMAGE:3631848 5'
4531	17540	30402	5.37	3.0E-56	AL163268.2	NT	Homo sapiens Down syndrome candidate region 1 (DSCR1), mRNA
4688	17693	30560	2.3	3.0E-56	5902085	NT	Homo sapiens chromosome 21 segment HS21C068
5257	18243	31094	0.67	3.0E-56	6912593	NT	Homo sapiens superkiller viral-like activity 2 (S_cerevisiae homolog)-like (SKIV2L), mRNA
							Homo sapiens phosphatidylinositol transfer protein, beta (PITPNB), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6881	18950	32065	1.66	3.0E-56	4759163	NT	Homo sapiens sparco/osteonectin, cxcv and kazal-like domains proteoglycan (testican) (SPOCK) mRNA
5881	18950	32065	1.66	3.0E-56	4759163	NT	Homo sapiens sparco/osteonectin, cxcv and kazal-like domains proteoglycan (testican) (SPOCK) mRNA
7200	20200	33446	7.84	3.0E-56	11421124	NT	Homo sapiens lysosomal-associated membrane protein 2 (LAMP2), mRNA
7707	20639	33936	0.86	3.0E-56	4504970	NT	Homo sapiens LIM binding domain 2 (LDB2) mRNA
7707	20639	33937	0.86	3.0E-56	4504970	NT	Homo sapiens LIM binding domain 2 (LDB2) mRNA
9375	22303	35664	6.27	3.0E-56	11418704	NT	Homo sapiens bone morphogenetic protein 5 (BMP5), mRNA
10329	23218	36632	0.89	3.0E-56	D63479.2	NT	Homo sapiens KIAA0317 gene product (KIAA0317), mRNA
10959	23843	37269	1.58	3.0E-56	5902013	NT	Homo sapiens nuclear pore complex interacting protein (NPIP), mRNA
11759	24660	38144	1.77	3.0E-56	5902013	NT	Homo sapiens nuclear pore complex interacting protein (NPIP), mRNA
11759	24660	38145	1.77	3.0E-56	5902013	NT	Homo sapiens nuclear pore complex interacting protein (NPIP), mRNA
12443	25198	31847	1.84	3.0E-56	11434876	NT	Homo sapiens caveolin 3 (CAV3), mRNA
12443	25198	31848	1.84	3.0E-56	11434876	NT	Homo sapiens caveolin 3 (CAV3), mRNA
547	13616		1.44	2.0E-56	AA189818.1	EST_HUMAN	zq52a08.s1 Stragene neuroepithelium (#937231) Homo sapiens cDNA clone IMAGE:645206 3'
756	15883	26740	2.26	2.0E-56	BE084386.1	EST_HUMAN	RC4-BT0310-110300-015-f10 BT0310 Homo sapiens cDNA
756	15883	26741	2.26	2.0E-56	BE084386.1	EST_HUMAN	RC4-BT0310-110300-015-f10 BT0310 Homo sapiens cDNA
3030	16082	28983	1.12	2.0E-56	AB037835.1	NT	Homo sapiens mRNA for KIAA1414 protein, complete cds
3361	16405		1.13	2.0E-56	AB008681.1	NT	Homo sapiens gene for activin receptor type IIB, complete cds
3595	16632	29537	1.75	2.0E-56	AV703184.1	EST_HUMAN	AV703184 ADB Homo sapiens cDNA clone ADBCFG10 5'
7449	20390	33680	3.51	2.0E-56		NT	Homo sapiens SET domain and maliner transposase fusion gene (SETMAR) mRNA
1007	14056		5.82	1.0E-56	AF190930.1	NT	Macaca fascicularis protein tyrosine phosphatase (PRL-1) mRNA, complete cds
3742	16774	29660	1.66	1.0E-56	AW589833.1	EST_HUMAN	hg23c11.x1 NCL CGAP GC6 Homo sapiens cDNA clone IMAGE:2846452 3'
3742	16774	29661	1.66	1.0E-56	AW589833.1	EST_HUMAN	hg23c11.x1 NCL CGAP GC6 Homo sapiens cDNA clone IMAGE:2846452 3'
5355	18338	31183	0.94	1.0E-56		NT	Mus musculus cytoplasmic polyadenylation element binding protein (Cpeb), mRNA
7134	20242	33493	0.51	1.0E-56	AW609520.1	EST_HUMAN	MR3-S.T0203-180100-208-f02 ST0203 Homo sapiens cDNA
10462	23350		0.76	1.0E-56	AL163203.2	NT	Homo sapiens chromosome 21 segment HS21C003
10551	23437	36858	1.79	1.0E-56	AW845987.1	EST_HUMAN	RC2-CT0163-220989-001-E02 CT0163 Homo sapiens cDNA
649	13710		1.44	9.0E-57	AW880885.1	EST_HUMAN	QV0-OT0033-070300-152-h03 OT0033 Homo sapiens cDNA
11669	24573	38049	1.93	9.0E-57	AF228497.1	NT	Homo sapiens serine protease 17 (KLK4) gene, complete cds
11669	24573	38050	1.93	9.0E-57	AF228497.1	NT	Homo sapiens serine protease 17 (KLK4) gene, complete cds
14	13129	26016	1.51	8.0E-57		NT	Homo sapiens hypothetical protein FLJ20371 (FLJ20371), mRNA
317	13409	26327	2.22	8.0E-57	AW816405.1	EST_HUMAN	QV4-S.T0234-181199-037-f05 ST0234 Homo sapiens cDNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
909	13861	26908	5.82	8.0E-57	AW264599.1	EST_HUMAN	XP0510x1 NCL CGAP_Bim53 Homo sapiens cDNA clone IMAGE:2759251 3' similar to gb:U05875
1838	14861	27843	2.95	8.0E-57	AA496109.1	EST_HUMAN	INTERFERON-GAMMA RECEPTOR BETA CHAIN PRECURSOR (HUMAN);
3439	16480	29386	1.07	8.0E-57	4758279	NT	z5v1512.1 Soares Testis_NHT Homo sapiens cDNA clone IMAGE:757151 5'
3439	16480	29387	1.07	8.0E-57	4758279	NT	Homo sapiens EphA4 (EPHA4) mRNA
5016	18014	30873	1.05	8.0E-57	4557630	NT	Homo sapiens EphA4 (EPHA4) mRNA
5421	25834	31491	1.63	8.0E-57	11418185	NT	Homo sapiens glutamate receptor, ionotropic, AMPA 4 (GRIIA4) mRNA
6684	19702	32897	0.62	8.0E-57	AB020706.1	NT	Homo sapiens aconitase 2, mitochondrial (ACO2), mRNA
6737	19771	32881	10.9	8.0E-57	AB023177.1	NT	Homo sapiens mRNA for KIAA0898 protein, partial cds
6737	19771	32882	10.9	8.0E-57	AB023177.1	NT	Homo sapiens mRNA for KIAA0960 protein, partial cds
7853	20780	34082	0.68	8.0E-57	7682263	NT	Homo sapiens mRNA for KIAA0960 protein, partial cds
8215	21120	34453	3.92	8.0E-57	AB020644.1	NT	Homo sapiens mRNA for KIAA0837 protein, partial cds
8215	21120	34454	3.92	8.0E-57	AB020644.1	NT	Homo sapiens mRNA for KIAA0837 protein, partial cds
11910	13129	26015	3	8.0E-57	8923349	NT	Homo sapiens hypothetical protein FLJ20371 (FLJ20371), mRNA
12165	26001	35502	3	8.0E-57	11433356	NT	Homo sapiens nifin (LOC61169), mRNA
1247	14283	27226	1.83	7.0E-57	AJ003100.1	NT	Homo sapiens GYS2 gene, exon 14
3295	16342	29244	1.16	7.0E-57	7242158	NT	Homo sapiens NME7 (NME7), mRNA
3315	16362	29263	1.16	7.0E-57	7242158	NT	Homo sapiens NME7 (NME7), mRNA
3315	16362	29263	0.8	7.0E-57	6005979	NT	Homo sapiens Kruppel-like factor 8 (KLF8), mRNA
3947	16975	29858	1.84	7.0E-57	AF012872.1	NT	Homo sapiens phosphatidylinositol 4-kinase 230 (p14K230) mRNA, complete cds
3947	16975	29859	1.84	7.0E-57	AF012872.1	NT	Homo sapiens phosphatidylinositol 4-kinase 230 (p14K230) mRNA, complete cds
13084	25864		4.99	5.0E-57	AJ217135.1	NT	Homo sapiens Xq pseudautosomal region, segment 1/2
3817	16847	29732	4.21	4.0E-57	AB026898.1	NT	Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL4 genes, complete cds)
830	13885	26823	0.97	3.0E-57	4507798	NT	Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A) mRNA
1359	14390		20.84	3.0E-57	AA230279.1	EST_HUMAN	nc13107.s1 NCL CGAP_P1 Homo sapiens cDNA clone IMAGE:1008037 similar to SW:RS10_HUMAN
2414	15418	28419	1.07	3.0E-57	AA348335.1	EST_HUMAN	P46783 40S RIBOSOMAL PROTEIN S10.
3762	16794		88.65	3.0E-57	AW853964.1	EST_HUMAN	EST54770 Hippocampus II Homo sapiens cDNA 5' end
4148	17169	30042	1.36	3.0E-57	P08547	SWISSPROT	RC3-C10254-110300-027-d10 C10254 Homo sapiens cDNA
6262	19313	32478	1.17	3.0E-57	11225608	NT	LINE-1 REVERSE TRANSCRIPTASE HOMOLOG
6363	19412	32577	3.44	3.0E-57	BE786537.1	EST_HUMAN	Homo sapiens angiotensin I converting enzyme (peptidyl-dipeptidase A) 2 (ACE2), mRNA
8723	21653	35000	3.38	3.0E-57	W28130.1	EST_HUMAN	601589896F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944302 5'
							4216 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8748	21678	35020	1.77	3.0E-57	11545798	NT	Homo sapiens hypothetical protein FLJ11656 (FLJ11656), mRNA
8748	21678	35021	1.77	3.0E-57	11545798	NT	Homo sapiens hypothetical protein FLJ11656 (FLJ11656), mRNA
8858	21793	35138	0.74	3.0E-57	11427757	NT	Homo sapiens KIAA0049 gene product (KIAA0049), mRNA
9417	22345	35709	0.28	3.0E-57	AU117659.1	EST_HUMAN	AU117659 HEMBA1 Homo sapiens cDNA clone HEMBA1001910.5'
9792	22756	36140	0.81	3.0E-57	11545798	NT	Homo sapiens hypothetical protein FLJ11656 (FLJ11656), mRNA
9792	22756	36141	0.81	3.0E-57	11545798	NT	Homo sapiens hypothetical protein FLJ11656 (FLJ11656), mRNA
11346	24265	37705	2.78	3.0E-57	AW248374.1	EST_HUMAN	2820473 Splice NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2820473 6'
12450	26927	31371	4.65	3.0E-57	W23871.1	EST_HUMAN	2b45d11.r1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:306549 5'
12760	25837	31371	1.64	3.0E-57	AW178575.1	EST_HUMAN	RC0-HT0112-080999-001-C06 HT0112 Homo sapiens cDNA
1453	14485	27446	1.28	2.0E-57	AK78904.1	EST_HUMAN	tm25c10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2167618 3' similar to contains Alu repetitive element
1518	14543	27509	1.34	2.0E-57	AF246219.1	NT	Homo sapiens SNARE protein kinase SNAK mRNA, complete cds
1518	14549	27510	1.34	2.0E-57	AF246219.1	NT	Homo sapiens SNARE protein kinase SNAK mRNA, complete cds
2778	15768	28764	3.93	2.0E-57	AA845419.1	EST_HUMAN	ak02602.s1 Soares_parathyroid_tumor_NbHPA-Homo sapiens cDNA clone IMAGE:1404747 3' similar to contains Alu repetitive element; contains element MER22 repetitive element
3500	16538		1.85	2.0E-57	AL163204.2	NT	Homo sapiens chromosome 21 segment HS21C004
3610	16847	29547	0.87	2.0E-57	R07702.1	EST_HUMAN	ye98h01.r1 Soares_fetal_liver_spleen_NFLS_Homo sapiens cDNA clone IMAGE:125809 5'
3610	16847	29548	0.87	2.0E-57	R07702.1	EST_HUMAN	ye98h01.r1 Soares_fetal_liver_spleen_NFLS_Homo sapiens cDNA clone IMAGE:125809 5'
4008	17033	29923	0.95	2.0E-57	BE073264.1	EST_HUMAN	MRO-BT0561-060300-103-b03 BT0551 Homo sapiens cDNA
4284	17298	30164	0.73	2.0E-57	AA018299.1	EST_HUMAN	ze40c06.r1 Soares_retina_N2b4HR_Homo sapiens cDNA clone IMAGE:361450 5'
4284	17298	30165	0.73	2.0E-57	AA018299.1	EST_HUMAN	ze40c06.r1 Soares_retina_N2b4HR_Homo sapiens cDNA clone IMAGE:361450 5'
4632	17638	30501	11.45	2.0E-57	AL163283.2	NT	Homo sapiens chromosome 21 segment HS21C083
5885	18936		1.51	2.0E-57	AA016131.1	EST_HUMAN	ze31c05.r1 Soares_retina_N2b4HR_Homo sapiens cDNA clone IMAGE:360584 5' similar to contains L1.13 L1 repetitive element
6267	19318		30.03	2.0E-57	BF115288.1	EST_HUMAN	7n80104.x1 NCI_CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3570966 3' similar to contains TAR1.11 MER22 repetitive element
8400	19448	32619	0.73	2.0E-57	11431281	NT	Homo sapiens small inducible cytokine subfamily A (Cys-Cys), member 22 (SCYA22), mRNA
9190	22118	35474	0.93	2.0E-57	AF045452.1	NT	Homo sapiens cell-line KG1 transcriptional regulatory protein p54 mRNA, complete cds
10360	23249	36669	2.16	2.0E-57	AF057722.1	NT	Homo sapiens 17-beta-hydroxysteroid dehydrogenase IV (HSD17B4) gene, exons 3 and 4
11717	24618	38086	2.27	2.0E-57	11424084	NT	Homo sapiens hypothetical protein FLJ20041 (FLJ20041), mRNA
11717	24619	38097	2.27	2.0E-57	11424084	NT	Homo sapiens hypothetical protein FLJ20041 (FLJ20041), mRNA
11757	24658	38141	1.63	2.0E-57	AJ245503.1	NT	Homo sapiens partial mRNA for PEX5 related protein
11757	24658	38142	1.63	2.0E-57	AJ245503.1	NT	Homo sapiens partial mRNA for PEX5 related protein
1653	14983	27646	1.32	1.0E-57	BE173102.1	EST_HUMAN	MRO-HT0559-240400-014-H12 HT0559 Homo sapiens cDNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2245	15255	28261	3.88	1.0E-57	AW503208.1	EST_HUMAN	UI-HF-BNO-akt-g-07-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078348 5'
8416	21319	34651	0.46	1.0E-57	H55076.1	EST_HUMAN	CHR220015 Chromosome 22 exon Homo sapiens cDNA clone C22_25 5'
9251	22179		2.52	1.0E-57	BE043031.1	EST_HUMAN	h32a08.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3039092 3' similar to TR:O00246 O00246 HYPOTHETICAL 8.3 KD PROTEIN ;
12589	25286		9.43	1.0E-57	AW470791.1	EST_HUMAN	ha33d06.x1 NCL_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2875499 3' similar to contains THR.b3 THR repetitive element ;
5874	18944	32060	0.87	9.0E-58	AA297847.1	EST_HUMAN	EST11348 Uterus Homo sapiens cDNA 5' end
12838	25451	31777	2.89	9.0E-58	BE395061.1	EST_HUMAN	G01309465F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3631000 5'
610	13675		4.49	8.0E-58	BE868715.1	EST_HUMAN	G01445948F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3850211 5'
677	13739	26652	3.76	8.0E-58	AT98376.1	EST_HUMAN	tt34b07.x1 NCL_CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2220181 3' similar to TR:O15475 O15475 UNNAMED HERV-H PROTEIN ;
677	13739	26653	3.76	8.0E-58	AT98376.1	EST_HUMAN	tt34b07.x1 NCL_CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2220181 3' similar to TR:O15475 O15475 UNNAMED HERV-H PROTEIN ;
1881	14802	27885	2.05	8.0E-58	11434921	NT	Homo sapiens putative protein O-mannosyltransferase (POMT2), mRNA
1881	14802	27886	2.05	8.0E-58	11434921	NT	Homo sapiens putative protein O-mannosyltransferase (POMT2), mRNA
3016	16068		3.15	8.0E-58	7706132	NT	Homo sapiens DHHC1 protein (LOC51304), mRNA
7608	20543	33834	0.54	7.0E-58	BE561971.1	EST_HUMAN	G01346704F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3687577 5'
11290	24210		5.09	7.0E-58	5174542	NT	Homo sapiens MADS box transcription enhancer factor 2, polypeptide B (myocyte enhancer factor 2B) (MEF2B) mRNA
11367	24285	37729	3.15	7.0E-58	AW504109.1	EST_HUMAN	UI-HF-BNO-akt-g-10-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079867 5'
11367	24285	37730	3.15	7.0E-58	AW504109.1	EST_HUMAN	UI-HF-BNO-akt-g-10-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079867 5'
2270	15290	28287	1.48	6.0E-58	BE395061.1	EST_HUMAN	G01309465F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3631000 5'
2398	15403	28407	5.2	6.0E-58	AU130889.1	EST_HUMAN	AU130689 NT2RP3 Homo sapiens cDNA clone NT2RP3001263 5'
2945	15997	28998	1.28	6.0E-58	BE242150.1	EST_HUMAN	TCAAP1E1219 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCAA Homo sapiens cDNA clone TCAAP1219
2945	15997	28999	1.28	6.0E-58	BE242150.1	EST_HUMAN	TCAAP1E1219 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCAA Homo sapiens cDNA clone TCAAP1219
8411	19469	32833	1.61	6.0E-58	AF106911.1	NT	Homo sapiens chemokine MIP-2 gamma (MIP-2 gamma), complete cds
10789	23685	37115	1.2	6.0E-58	11434746	NT	Homo sapiens protein tyrosine phosphatase, non-receptor type 21 (PTPN21), mRNA
320	13412	26328	3.29	5.0E-58	4507334	NT	Homo sapiens synaptobrevin 1 (SYN1), mRNA
733	13791	28715	4.74	5.0E-58	BE763984.1	EST_HUMAN	RC4-NT0057-160600-016-505 NT0057 Homo sapiens cDNA
1222	14260	27201	2.33	5.0E-58	AW797948.1	EST_HUMAN	CM3-UM0043-240300-127-e07 UM0043 Homo sapiens cDNA
1222	14260	27202	2.33	5.0E-58	AW797948.1	EST_HUMAN	CM3-UM0043-240300-127-e07 UM0043 Homo sapiens cDNA
1223	14260	27201	1.93	5.0E-58	AW797948.1	EST_HUMAN	CM3-UM0043-240300-127-e07 UM0043 Homo sapiens cDNA



## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1223	14260	27202	1.93	5.0E-58	AW787948.1	EST_HUMAN	OM3-UM0043-240300-127-e07 UM0043 Homo sapiens cDNA
3368	16412	28313	5.27	5.0E-58	AA988183.1	EST_HUMAN	cr88e07.s1 NCL_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1603908 3'
4357	17371	30235	0.74	5.0E-58	AI636745.1	EST_HUMAN	ts89e07.x1 NCL_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2238468 3' similar to SW:PRO2_ACACA
5080	18087		0.96	5.0E-58	AW848834.1	EST_HUMAN	P19884 PROFILIN II;
5823	18894		1.9	5.0E-58	11496282	EST_HUMAN	IL3-CT0214-090300-081-F06 CT0214 Homo sapiens cDNA
8419	19466	32640	6.15	5.0E-58	H23072.1	EST_HUMAN	Homo sapiens placenta-specific 1 (PLAC1), mRNA
8658	19897	32893	1.1	5.0E-58	AL183285.2	NT	Homo sapiens chromosome 21 segment HS21C85
6744	19778	32981	0.94	5.0E-58	11421330	NT	Homo sapiens apical protein, Xenopus laevis-like (APXL), mRNA
7085	20291	33550	1.03	5.0E-58	AF051334.1	NT	Homo sapiens nibrin (NBS) mRNA, complete cds
7085	20281	33551	1.03	5.0E-58	AF051334.1	NT	Homo sapiens nibrin (NBS) mRNA, complete cds
7465	20405	33681	0.73	5.0E-58	4885400	NT	Homo sapiens holochochrome c synthase (cytochrome c heme-lyase) (HCOS) mRNA
8647	21478	34820	8.34	5.0E-58	8922693	NT	Homo sapiens hypophyseal protein FLJ10828 (FLJ10828), mRNA
8928	21856	36212	0.75	5.0E-58	AB046837.1	NT	Homo sapiens mRNA for KIAA1617 protein, partial cds
10371	23260	36681	0.83	5.0E-58	11430847	NT	Homo sapiens chromosome 21 segment HS21C018
10623	23509	36943	2	5.0E-58	AL183218.2	NT	Homo sapiens mRNA for KIAA0811 protein, partial cds
10886	23771	37198	0.64	5.0E-58	AB014511.1	NT	Homo sapiens mRNA for KIAA0811 protein, partial cds
10886	23771	37197	0.64	5.0E-58	AB014511.1	NT	Homo sapiens mRNA for KIAA0811 protein, partial cds
12419	25880		2.26	5.0E-58	11526293	NT	Homo sapiens cat eye syndrome chromosome region, candidate 1 (CEOR1), mRNA
394	13478	26397	4.5	4.0E-58	4502302	NT	Homo sapiens ATP synthase, H+ transporting, mitochondrial F1 complex, O subunit (oligomycin sensitivity conferring protein) (ATP5O) mRNA
823	13878	26815	1.54	4.0E-58	4504634	NT	Homo sapiens interleukin 10 receptor, beta (IL10RB), mRNA
1487	14518	27479	3.55	4.0E-58	4503648	NT	Homo sapiens coagulation factor IX (plasma thromboplastin component, Christmas disease, hemophilia B) (F9) mRNA
2813	15611	28608	1.27	4.0E-58	AF285555.1	NT	Homo sapiens ubiquitin-conjugating BIR-domain enzyme APOLLON mRNA, complete cds
2678	15674	28672	2	4.0E-58	U36251.1	NT	Human beta-prime-adaplin (BAM22) gene, exon 3
3370	16414	28315	1.81	4.0E-58	D18470.1	NT	Human mRNA, Xq terminal portion
3803	16834	28720	1.11	4.0E-58	5031660	NT	Homo sapiens EGF-like repeats and discoidin-like domains 3 (EDIL3), mRNA
5123	18119	30961	1.08	4.0E-58	S75264.1	NT	WT1-WT1s' tumor suppressor protein [human], fetal kidney, mRNA, 521 nt
8338	21243	34576	0.67	4.0E-58	BE463857.1	EST_HUMAN	hy18e02.x1 NCL_CGAP_GC6 Homo sapiens cDNA clone IMAGE:3187642 3'
11783	24082	38172	5.37	4.0E-58	11424059	NT	Homo sapiens ETB-55kDa-associated protein 5 (ETB-AP5), mRNA
355	13442		1.61	3.0E-58	R17879.1	EST_HUMAN	yg10e02.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:31693 5'
1416	14447	27401	1.73	3.0E-58	4758981	NT	Homo sapiens peptide YY (PYY) mRNA
3071	16123		0.85	3.0E-58	R17879.1	EST_HUMAN	yg10e02.r1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:31693 5'

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Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3221	16259	29167	2.98	3.0E-58	BF569848.1	EST_HUMAN	602185789F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4309943 5'
3221	16259	29168	2.98	3.0E-58	BF569848.1	EST_HUMAN	602185789F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4309943 5'
6511	16555	32735	0.69	3.0E-58	BE089509.1	EST_HUMAN	QV0-BT0702-170400-194-09 BT0702 Homo sapiens cDNA
6714	18750	32934	2.78	3.0E-58	F07066.1	EST_HUMAN	HSC1TG081 normalized Infant brain cDNA Homo sapiens cDNA clone c-1tg08
6932	19961	33182	1.8	3.0E-58	AV712977.1	EST_HUMAN	AV712977 DCA Homo sapiens cDNA clone DCAAZG04 5'
968	14019	26963	8.48	2.0E-58	AF088624.1	NT	Homo sapiens 5-aminolevulinate synthase 2 (ALAS2) gene, complete cds
							ba08b07.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823733 5' similar to gb-X69391 60S
							RIBOSOMAL PROTEIN L6 (HUMAN); gb-X61987 M.musculus mRNA for TAX responsive element binding protein (MOUSE);
1316	14349		13.31	2.0E-58	BE208532.1	EST_HUMAN	
5518	18598	31447	0.81	2.0E-58	AW074831.1	EST_HUMAN	xa08a09.x1 Soares NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2567704 3'
5542	25829	31471	3.35	2.0E-58	BE907186.1	EST_HUMAN	601499981F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3901911 5'
5542	25629	31495	3.35	2.0E-58	BE907186.1	EST_HUMAN	601499981F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3901911 5'
6292	19343	32511	1.36	2.0E-58	BF513488.1	EST_HUMAN	U1H-BW1-ens-g-11-0.U1.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3071060 3'
							am57a02.x1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1539074 3' similar to WP-ZK328.1
							CE05065 UBIQUITIN CONJUGATING ENZYME; RECOVERIN SUBFAMILY OF EF-HAND CALCIUM BINDING PROTEIN;
6361	19410	32575	2	2.0E-58	AI124874.1	EST_HUMAN	
6395	19443	32612	0.89	2.0E-58	R02587.1	EST_HUMAN	yq08h08.r1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:186379 5'
7256	20185	33404	0.89	2.0E-58	AI291407.1	EST_HUMAN	qm84c01.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1895424 3'
7518	20457	33742	2.69	2.0E-58	AF134838.1	NT	Homo sapiens endocytic receptor Endo180 (ENDO180) mRNA, complete cds
7518	20457	33743	2.69	2.0E-58	AF134838.1	NT	Homo sapiens endocytic receptor Endo180 (ENDO180) mRNA, complete cds
11182	24108	37555	14.38	2.0E-58	BF307745.1	EST_HUMAN	601890812F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4131891 5'
11402	24318	37765	1.95	2.0E-58	AW672641.1	EST_HUMAN	hm26f08.x1 NCI_CGAP_Thy4 Homo sapiens cDNA clone IMAGE:3013671 3'
745	13803	26727	6.68	1.0E-58	M65134.1	NT	Human complement component C5 mRNA, 3' end
1095	14138	27075	4.52	1.0E-58	6274549	NT	Homo sapiens NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 9 (22kD, B22) (NDUFB9), mRNA
1355	14387	27340	1.25	1.0E-58	AW957182.1	EST_HUMAN	EST369252 IMAGE resequences, MAGD Homo sapiens cDNA
1355	14387	27341	1.25	1.0E-58	AW957182.1	EST_HUMAN	EST369252 IMAGE resequences, MAGD Homo sapiens cDNA
1423	14454	27408	1.29	1.0E-58	AJ238093.1	NT	Homo sapiens partial AF-4 gene, exons 2 to 7 and Alu repeat elements
2849	15838	28836	0.95	1.0E-58	4759169	NT	Homo sapiens steroid regulatory element binding transcription factor 2 (SREBF2) mRNA
3784	16816	29702	0.66	1.0E-58	4507628	NT	Homo sapiens transition protein 1 (during histone to protamine replacement) (TNP1) mRNA
4846	17847	30715	0.95	1.0E-58	M69663.1	NT	Homo prothormone converting enzyme (NEC2) gene, exon 4
5091	18088	30938	9.03	1.0E-58	AI141063.1	EST_HUMAN	oz43h01.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1678128 3'
6055	19117	32246	1.2	1.0E-58	BE061890.1	EST_HUMAN	RC1-BT0264-280100-015-e01 BT0254 Homo sapiens cDNA
7187	20187	33430	1.04	1.0E-58	11422031	NT	Homo sapiens hypothetical protein (LOC51260), mRNA

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descrip tor
8691	21622		0.61	1.0E-58	AW973537.1	EST_HUMAN	EST385637 IMAGE resequences, MAGM Homo sapiens cDNA
9427	22355	35720	0.69	1.0E-58	4606314	NT	Homo sapiens myomesin (M-protein) 2 (165KD) (MYOM2), mRNA
9533	22450	35822	1.23	1.0E-58	AV751001.1	EST_HUMAN	AV751001 NPC Homo sapiens cDNA clone NP-ACH09 5'
9627	22553	35922	0.62	1.0E-58	AA412397.1	EST_HUMAN	Z83051.1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:730497 5'
9627	22553	35923	0.62	1.0E-58	AA412397.1	EST_HUMAN	Z83051.1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:730497 5'
10683	23559	36999	0.69	1.0E-58	11432894	NT	Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2), mRNA
12188	25024		1.99	1.0E-58	XG3392.1	NT	H. sapiens immunoglobulin kappa light chain variable region L14
2243	15253	28259	20.74	8.0E-59	4507378	NT	Homo sapiens TATA box binding protein (TBP) mRNA
7154	20282	33516	0.53	8.0E-59	AA382291.1	EST_HUMAN	EST95683 Testis I Homo sapiens cDNA 5' end
7154	20282	33517	0.53	8.0E-59	AA382291.1	EST_HUMAN	EST95683 Testis I Homo sapiens cDNA 5' end
8758	21698	35031	2.87	8.0E-59	AI761963.1	EST_HUMAN	wh50d06.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2384171 3'
9337	21242	34574	0.43	7.0E-59	BE149117.1	EST_HUMAN	RC4-HT0251-140100-013-h01 HT0251 Homo sapiens cDNA
8337	21242	34575	0.43	7.0E-59	BE149117.1	EST_HUMAN	RC4-HT0251-140100-013-h01 HT0251 Homo sapiens cDNA
189	16888		1.82	6.0E-59	BF035327.1	EST_HUMAN	601458351F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3862086 5'
8386	21290	34623	0.55	6.0E-59	AA82431.1	EST_HUMAN	on81a04.s1 NCL CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1553550 3' similar to TR:Q13732 Q13732 SA GENE PRODUCT PRECURSOR. ;
8821	21751	35097	0.85	6.0E-59	AI750970.1	EST_HUMAN	cn06h02.y1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn06h02 random
1779	14805	27773	0.95	5.0E-59	AW157281.1	EST_HUMAN	au83h05.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783865 3' similar to TR:O75786 O75786 GANGLIOSIDE-INDUCED DIFFERENTIATION ASSOCIATED PROTEIN 1. ;
1779	14805	27774	0.95	5.0E-59	AW157281.1	EST_HUMAN	au83h05.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783865 3' similar to TR:O75786 O75786 GANGLIOSIDE-INDUCED DIFFERENTIATION ASSOCIATED PROTEIN 1. ;
3172	16222	29113	8.44	5.0E-59	AI807484.1	EST_HUMAN	wf48c11.x1 Soares_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:2358836 3'
4768	17773	30640	4.66	5.0E-59	X83497.1	NT	H. sapiens DNA for ZNF80-linked ERV9 long terminal repeat element TAR1 repetitive element ;
7330	18498	31274	8.72	5.0E-59	AW162304.1	EST_HUMAN	au86c07.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2781228 3' similar to contains element TAR1 repetitive element ;
9384	22282	35667	0.87	5.0E-59	11421778	NT	Homo sapiens polymerase (RNA) III (DNA directed) (39kD) (RPC39), mRNA
10227	23118	36520	1.09	5.0E-59	AV752869.1	EST_HUMAN	AV752869 MDS Homo sapiens cDNA clone MDSEIC12 5'
11345	24264	37704	3.44	5.0E-59	11434808	NT	Homo sapiens hypothetical protein (LOC57143), mRNA
820	13875	26813	2.59	4.0E-59	D80006.1	NT	Human mRNA for KIAA0184 gene, partial cds
4907	17806	30776	1.03	4.0E-59	4506758	NT	Homo sapiens tyrosine receptor 3 (RYR3) mRNA
4907	17906	30777	1.03	4.0E-59	4506758	NT	Homo sapiens tyrosine receptor 3 (RYR3) mRNA
5727	18800	31893	1.08	4.0E-59	11034810	NT	Homo sapiens catenin (cadherin-associated protein), delta 2 (neural plakophilin-related arm-repeat protein) (CTNND2), mRNA

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
12549	25799		6.79	4.0E-59	AF057720.1	NT	Homo sapiens 17-beta-hydroxysteroid dehydrogenase IV (HSD17B4) gene, promoter region and exon 1
10	13123		4.23	3.0E-59	AW985524.1	EST_HUMAN	EST377582 MAGC resequences, MAGC Homo sapiens cDNA
244	13341	26253	3.83	3.0E-59	7662247	NT	Homo sapiens KIAA0080 gene product (KIAA0080), mRNA
1739	14763	27736	8.88	3.0E-59	4505860	NT	Homo sapiens plasminogen activator, lissue (PLATa) mRNA
1739	14768	27737	8.88	3.0E-59	4505860	NT	Homo sapiens plasminogen activator, lissue (PLATa) mRNA
2143	15159	28157	5.78	3.0E-59	AB029035.1	NT	Homo sapiens mRNA for KIAA1112 protein, partial cds
2143	15166	28168	5.78	3.0E-59	AB029035.1	NT	Homo sapiens mRNA for KIAA1112 protein, partial cds
3086	16137	29033	1.21	3.0E-59	T18865.1	EST_HUMAN	h020171 Testis 1 Homo sapiens cDNA clone h02017 5' end
3086	16137	29034	1.21	3.0E-59	T18865.1	EST_HUMAN	h020171 Testis 1 Homo sapiens cDNA clone h02017 5' end
3174	16224	29117	4.6	3.0E-59	4502014	NT	Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA
3174	16224	29118	4.6	3.0E-59	4502014	NT	Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA
3898	16927	29805	1.35	3.0E-59	4508044	NT	Homo sapiens zona pellucida glycoprotein 2 (spERM receptor) (ZP2) mRNA
4798	17800	30658	2.2	3.0E-59	AL163284.2	NT	Homo sapiens chromosome 21 segment HS21C084
4955	17853	30812	1.45	3.0E-59	7427522	NT	Homo sapiens protein tyrosine phosphatase, receptor type, T (PTPRT), mRNA
6465	18513	32885	1.91	3.0E-59	8924074	NT	Homo sapiens hypothetical protein PRO1741 (PRO1741), mRNA
7751	20681	33981	1.89	3.0E-59	5454137	NT	Homo sapiens nuclear receptor co-repressor 1 (NCOR1), mRNA
8510	21441	34782	1.31	3.0E-59	X12556.1	NT	Human mRNA for dbl proto-oncogene
8510	21441	34783	1.31	3.0E-59	X12556.1	NT	Human mRNA for dbl proto-oncogene
10547	23433	36852	0.75	3.0E-59	X70251.1	NT	H. sapiens CKII-alpha gene
10547	23433	36863	0.75	3.0E-59	X70251.1	NT	H. sapiens CKII-alpha gene
12527	25251		1.82	3.0E-59	11417866	NT	Homo sapiens gamma-glutamyltransferase-like activity 1 (GGTLA1), mRNA
12665	25356		10.58	3.0E-59	11417866	NT	Homo sapiens gamma-glutamyltransferase-like activity 1 (GGTLA1), mRNA
6100	19161	32294	0.53	2.0E-59	BF509383.1	EST_HUMAN	UI-H-B14-aoy-b-02-0-UI.s1 NCL CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3086522 3'
6100	19161	32295	0.53	2.0E-59	BF509383.1	EST_HUMAN	UI-H-B14-aoy-b-02-0-UI.s1 NCL CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3086522 3'
7118	20322		0.49	2.0E-59	AA470073.1	EST_HUMAN	Zf8605.s1 Soares, testis, NHT Homo sapiens cDNA clone IMAGE:730377 3'
7424	20123	33360	0.59	2.0E-59	AF135187.1	NT	Homo sapiens interferon-induced protein p78 (MX1) gene, complete cds
8281	21186		0.41	2.0E-59	BF373329.1	EST_HUMAN	MRO-FT0144-250700-002-a10 FT0144 Homo sapiens cDNA
10163	23054		5.72	2.0E-59	AA309774.1	EST_HUMAN	EST180633 Jurkat T-cells V Homo sapiens cDNA 5' end
11006	23890		1.53	2.0E-59	BF365554.1	EST_HUMAN	RC0-NT0036-100700-032-a07 NT0036 Homo sapiens cDNA
11270	24192	37642	1.77	2.0E-59	AW410698.1	EST_HUMAN	fn07h04.x1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2961654 5'
11270	24192	37643	1.77	2.0E-59	AW410698.1	EST_HUMAN	fn07h04.x1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2961654 5'
12439	25196	31881	7.18	2.0E-59	AI631809.1	EST_HUMAN	w836c12.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2300182 3' similar to TR:Q86542 Q86542 RTVL-H PROTEIN.; contains LTR7.b1 LTR7 repetitive element;

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
12930	25820	31482	1.83	2.0E-59	L11645.1	NT	Homo sapiens alpha-tubulin mRNA, complete cds
173	13274		5.53	1.0E-59	BE29641.1	EST_HUMAN	601176757F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531927 5'
2436	15440	28441	1.71	1.0E-59	D11456.2	NT	Homo sapiens Xdh mRNA for xanthine dehydrogenase, complete cds
2436	15440	28442	1.71	1.0E-59	D11456.2	NT	Homo sapiens Xdh mRNA for xanthine dehydrogenase, complete cds
2682	15658		3.67	1.0E-59	AA748468.1	EST_HUMAN	oa56h11.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1308029 3' similar to TR:Q13537
6678	16715	32911	0.43	1.0E-59	11428724	NT	Q13537 MER37 TRANSPOSABLE ELEMENT, COMPLETE CONSENSUS SEQUENCE. ;
6878	19715	32912	0.43	1.0E-59	11428724	NT	Homo sapiens phosphatidylinositol transfer protein (PITPN), mRNA
7995	20913	34229	1.92	1.0E-59	AJ130894.1	NT	Homo sapiens mRNA for transcription factor
8178	21085	34418	0.89	1.0E-59	BE256814.1	EST_HUMAN	601111951F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3352692 5'
8178	21085	34419	0.89	1.0E-59	BE256814.1	EST_HUMAN	601111951F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352692 5'
9922	22910	36298	0.83	1.0E-59	11419830	NT	Homo sapiens zinc finger protein 276 (ZNF276), mRNA
10131	23022	36417	2.01	1.0E-59	11428849	NT	Homo sapiens 3-hydroxyisobutyl-Coenzyme A hydrolase (HIBCH), mRNA
10131	23022	36418	2.01	1.0E-59	11428849	NT	Homo sapiens mRNA for transcription factor
11289	20913	34229	6.87	1.0E-59	AJ130894.1	NT	Homo sapiens cyclin-D binding Myb-like protein mRNA, complete cds
4424	17435	30295	0.65	9.0E-60	AF084530.1	EST_HUMAN	EST1389849 MAGE resequences, MAGE Homo sapiens cDNA
789	13845	26779	1.88	8.0E-60	AW977845.1	EST_HUMAN	EST1389849 MAGE resequences, MAGE Homo sapiens cDNA
1490	14521	27492	1.62	8.0E-60	4769159	NT	Homo sapiens small nuclear ribonucleoprotein D3 polypeptide (18kD) (SNRPD3) mRNA
2185	15196	28201	2.12	8.0E-60	5174858	NT	Homo sapiens differentiation-related gene 1 (nickel-specific induction protein) (RTP) mRNA
2185	15196	28202	2.12	8.0E-60	5174858	NT	Homo sapiens differentiation-related gene 1 (nickel-specific induction protein) (RTP) mRNA
6211	19266	32417	1.12	8.0E-60	AB029004.1	NT	Homo sapiens mRNA for KIAA1081 protein, partial cds
6781	19814	33026	2.92	8.0E-60	S83182.1	NT	hyaluronan-binding protein=hepatocyte growth factor activator homolog [human, plasma, mRNA, 2408 nt]
8151	21060	34391	0.88	8.0E-60	11420841	NT	Homo sapiens phosphate cytidylyltransferase 1, choline, beta isoform (PCYT1B), mRNA
8543	21474	34818	3.95	8.0E-60	X17033.1	NT	Human mRNA for Integrin alpha-2 subunit
9495	22423	35786	3.17	8.0E-60	11428949	NT	Homo sapiens S-antigen, retina and pineal gland (arrestin) (SAG), mRNA
10004	22821	36208	0.85	8.0E-60	11417118	NT	Homo sapiens KIAA0433 protein (KIAA0433), mRNA
10004	22821	36209	0.85	8.0E-60	11417118	NT	Homo sapiens KIAA0433 protein (KIAA0433), mRNA
11048	23930	37370	0.76	8.0E-60	5453997	NT	Homo sapiens RAN binding protein 7 (RANBP7), mRNA
11272	24164	37645	5.04	8.0E-60	AL163204.2	NT	Homo sapiens chromosome 21 segment HS21C004
11272	24164	37646	5.04	8.0E-60	AL163204.2	NT	Homo sapiens chromosome 21 segment HS21C004
778	13835	26769	8.53	7.0E-60	AF055068.1	NT	Homo sapiens MHC class 1 region
779	13835	26769	26.62	7.0E-60	AF055068.1	NT	Homo sapiens MHC class 1 region
840	13895	26832	1.36	7.0E-60	4504634	NT	Homo sapiens interleukin 10 receptor, beta (IL10RB), mRNA

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Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2142	15155	28156	1.23	7.0E-60	AF077188.1	NT	Homo sapiens cullin 4A (CUL4A) mRNA, complete cds
4273	17289	30156	2.35	7.0E-60	4505488	NT	Homo sapiens ornithine decarboxylase 1 (ODC1) mRNA
5304	18288		0.99	7.0E-60	AL163208.2	NT	Homo sapiens chromosome 21 segment HS21C008
9941	22846	36237	4.67	7.0E-60	H58041.1	EST_HUMAN	Y1204.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:205087 5' similar to contains L TRS repetitive element;
11803	24724	38216	2.15	7.0E-60	H58041.1	EST_HUMAN	Y1204.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:205087 5' similar to contains L TRS repetitive element;
2192	15203	28208	1.07	6.0E-60	BE964974.2	EST_HUMAN	601658751R1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3886069 3'
8394	21297	34628	0.49	6.0E-60	11421735	NT	Homo sapiens cAMP response element-binding protein CRE-BPa (H_GS165L15.1), mRNA
9009	21935		11.73	6.0E-60	H52456.1	EST_HUMAN	Y178109.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:201953 5' similar to contains ORF repetitive element;
88	13189	26111	1.61	5.0E-60	AI807917.1	EST_HUMAN	Wf52c07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2359212 3'
86	13199	26112	1.61	5.0E-60	AI807917.1	EST_HUMAN	Wf52c07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2359212 3'
2250	15260	28268	3.93	4.0E-60	AW503208.1	EST_HUMAN	UI-HF-BNO-akt-g-07-Q-J1.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078348 5'
2250	15260	28269	3.93	4.0E-60	AW503208.1	EST_HUMAN	UI-HF-BNO-akt-g-07-Q-J1.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078348 5'
3013	16055		1.52	4.0E-60	AA289037.1	EST_HUMAN	EST11498 Uterus Homo sapiens cDNA 5' end similar to similar to retrovirus-related pol
7741	20672	33970	0.69	4.0E-60	BF196088.1	EST_HUMAN	h81105.x1 NCI CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134913 3' similar to SW:RHOP_MOUSE
9671	22597		0.67	4.0E-60	AL163276.2	NT	Q61085 GTP-RHO BINDING PROTEIN 1;
1884	14905	27889	4.2	3.0E-60	BE562611.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C078
1084	14905	27890	4.2	3.0E-60	BE562611.1	EST_HUMAN	601336446F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3690395 5'
1892	14913		2.02	3.0E-60	6031180	NT	601336446F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3690395 5'
4568	17576	30438	3.09	3.0E-60	AJ271735.1	NT	Homo sapiens prohibitin (PHB) mRNA
5563	18641	31518	0.4	3.0E-60	BF365143.1	EST_HUMAN	Homo sapiens Xq pseudautosomal region; segment 1/2
5837	18908	32023	1.93	3.0E-60	AW638186.1	EST_HUMAN	QV4-NN1149-250900-423-r01 NN1149 Homo sapiens cDNA
							RC3-L10023-200100-012-e01 LT0023 Homo sapiens cDNA
7287	18456	31326	1.28	3.0E-60	AI792814.1	EST_HUMAN	cl60h11.y5 NCI CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1534053 5' similar to SW:JDP_MOUSE
8973	21903	35258	4.65	3.0E-60	5174644	NT	P52624 URIDINE PHOSPHORYLASE;
8973	21903	35259	4.65	3.0E-60	5174644	NT	Homo sapiens proline dehydrogenase (proline oxidase) (PRODH) mRNA
							Homo sapiens proline dehydrogenase (proline oxidase) (PRODH) mRNA
9146	22074	35436	0.63	3.0E-60	AI040235.1	EST_HUMAN	ox53d09.x1 Soares NIH-IMPu_S1 Homo sapiens cDNA clone IMAGE:1680337 3' similar to
9301	22229	35589	0.71	3.0E-60	5174644	NT	SW:FORM_MOUSE_Q05860 FORMIN;
							Homo sapiens proline dehydrogenase (proline oxidase) (PRODH) mRNA
32	13148	26037	5.75	2.0E-60	AY008285.1	NT	Homo sapiens solute carrier (SLC25A18) mRNA, complete cds; nuclear gene for mitochondrial product

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## Single Exon Probes Expressed In Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1446	14477	27438	2.16	2.0E-60	Z11694.1	NT	H. sapiens 41kDa protein kinase related to rat ERK2
1750	14777	27745	1.18	2.0E-60	M24603.1	NT	Human bcr protein mRNA, 5' end
1760	14787	27767	0.94	2.0E-60	AY008285.1	NT	Homo sapiens soluble carrier (SLC25A18) mRNA, complete cds; nuclear gene for mitochondrial product
2649	15644	28644	0.91	2.0E-60	7657229	NT	Homo sapiens interleukin 17 receptor (IL17R) mRNA
3639	16875	29573	0.67	2.0E-60	4757887	NT	Homo sapiens v-raf murine sarcoma viral oncogene homolog B1 (BRAF) mRNA
3988	17015	28804	0.72	2.0E-60	AF231919.1	NT	Homo sapiens chromosome 21 unknown mRNA
4221	17237		0.66	2.0E-60	BF513458.1	EST_HUMAN	UI-H-BW1-ans-e-05-0-UI.s1 NCL CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3070952 3'
6555	19597	32785	0.9	2.0E-60	AI791952.1	EST_HUMAN	nm01112.5 NCL CGAP_Co8 Homo sapiens cDNA clone IMAGE:1078495 5' similar to contains THR.t1 THR repetitive element;
6768	19802	33013	1.43	2.0E-60	AF004877.1	NT	Homo sapiens pro-alpha 2(I) collagen (COL1A2) gene, complete cds
7013	20040	33274	1.03	2.0E-60	AF187476.1	NT	Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds
7168	18440	31342	2.11	2.0E-60	4503044	NT	Homo sapiens corticotropin releasing hormone receptor 2 (CRHR2) mRNA
7168	18440	31343	2.11	2.0E-60	4503044	NT	Homo sapiens corticotropin releasing hormone receptor 2 (CRHR2) mRNA
7469	20409	33686	5.72	2.0E-60	AA311159.1	EST_HUMAN	EST181949 Jurkat T-cells V Homo sapiens cDNA 5' end similar to similar to prothymosin, alpha
7469	20409	33687	5.72	2.0E-60	AA311159.1	EST_HUMAN	EST181949 Jurkat T-cells V Homo sapiens cDNA 5' end similar to similar to prothymosin, alpha
7593	20529	33820	0.44	2.0E-60	AI308124.1	EST_HUMAN	lb23409.x1 NCL CGAP_Kid12 Homo sapiens cDNA clone IMAGE:3071210 3'
8080	20992		1.19	2.0E-60	BF512808.1	EST_HUMAN	Q62805 GALANIN RECEPTOR ;
8584	21615	34859	1.07	2.0E-60	X85597.1	EST_HUMAN	HS185EST human adult testis Homo sapiens cDNA clone CAM_EST15
8425	22363	36710	4.02	2.0E-60	L36033.1	NT	Human pre-B cell stimulating factor homologue (SDF1b) mRNA, complete cds
10484	23372	36786	2.47	2.0E-60	11991659	NT	Homo sapiens sema domain, transmembrane domain (TM), and cytoplasmic domain, (semaphorin) 6A (SEMA6A), mRNA
10484	23372	36787	2.47	2.0E-60	11991659	NT	Homo sapiens sema domain, transmembrane domain (TM), and cytoplasmic domain, (semaphorin) 6A (SEMA6A), mRNA
12697	25353		2.08	2.0E-60	11418192	NT	Homo sapiens non-histone chromosome protein 2 (S. cerevisiae)-like 1 (NHP2L1), mRNA
12821	25440		1.58	2.0E-60	11418068	NT	Homo sapiens similar to HSPC022 protein (H. sapiens) (LOC83504), mRNA
12835	25450		1.78	2.0E-60	AB011399.1	NT	Homo sapiens gene for AF-6, complete cds
545	13614	28522	1.03	1.0E-60	BE178589.1	EST_HUMAN	PM3-H10605-270206-001-e06 HT0605 Homo sapiens cDNA
3974	17002	29889	1.55	1.0E-60	AU143389.1	EST_HUMAN	AU143389 Y79AA1 Homo sapiens cDNA clone Y79AA1001851 5'
5071	18068	30918	1.75	1.0E-60	AL163285.2	NT	Homo sapiens chromosome 21 segment HS21Q085
6527	21458	34801	0.86	1.0E-60	BE064410.1	EST_HUMAN	RC4-BT0311-141189-011-h06 BT0311 Homo sapiens cDNA
9315	22243		3.32	1.0E-60	AA244041.1	EST_HUMAN	nc04e12.r1 NCL CGAP_P1 Homo sapiens cDNA clone IMAGE:1007182 similar to contains L1.t1 L1 repetitive element;

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
9341	22269	35631	1.3	1.0E-60	AV754081.1	EST_HUMAN	AV754081 TP Homo sapiens cDNA clone TPG4ED05 5'
1128	14168	27105	2.8	9.0E-61	AU119344.1	EST_HUMAN	AU119344 HEMBA1 Homo sapiens cDNA clone HEMBA1005883 5'
9270	27198	35555	0.58	9.0E-61	4885948	NT	Homo sapiens PHD finger protein 2 (PHF2) mRNA
9270	22108	35556	0.58	9.0E-61	4885946	NT	Homo sapiens PHD finger protein 2 (PHF2) mRNA
2719	15712	28710	1.59	8.0E-61	AW006478.1	EST_HUMAN	wf05b10.x1 NCI_CGAP_C03 Homo sapiens cDNA clone IMAGE:2506555 3'
2719	15712	28711	1.59	8.0E-61	AW006478.1	EST_HUMAN	wf05b10.x1 NCI_CGAP_C03 Homo sapiens cDNA clone IMAGE:2506555 3'
2892	16044		4.8	8.0E-61	X57147.1	NT	Human endogenous retrovirus pHE.1 (ERV9)
8475	21406	34745	1.5	8.0E-61	AA583968.1	EST_HUMAN	nm59g08.s1 NCI_CGAP_Lar1 Homo sapiens cDNA clone IMAGE:1088218 3'
132	13235	26152	0.91	7.0E-61	7706670	NT	Homo sapiens PXR2b protein (PXR2b), mRNA
132	13235	26153	0.91	7.0E-61	7706670	NT	Homo sapiens PXR2b protein (PXR2b), mRNA
5229	13235	26152	1.94	7.0E-61	7706670	NT	Homo sapiens PXR2b protein (PXR2b), mRNA
5229	13235	26153	1.94	7.0E-61	7706670	NT	Homo sapiens PXR2b protein (PXR2b), mRNA
285	13379	26283	1.99	6.0E-61	BE409310.1	EST_HUMAN	601300938F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635480 5'
837	13892	26829	1.88	6.0E-61	BE409310.1	EST_HUMAN	601300938F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635480 5'
1349	14381	27333	10.83	6.0E-61	AF119860.1	NT	Homo sapiens PRO2014 mRNA, complete cds
1654	14684	27647	1.09	6.0E-61	BE257400.1	EST_HUMAN	601109238F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350145 5'
1674	14704	27666	2.39	6.0E-61	AA596033.1	EST_HUMAN	nm66h09.s1 NCI_CGAP_Lar1 Homo sapiens cDNA clone IMAGE:1088897 3'
2141	15164	28155	1.13	6.0E-61	AY008285.1	NT	Homo sapiens scute carrier (SLC25A18) mRNA, complete cds; nuclear gene for mitochondrial product
3352	16388	29298	7.97	6.0E-61	AU130689.1	EST_HUMAN	AU130689 NT2RP3 Homo sapiens cDNA clone NT2RP3001263 5'
6284	18315	32480	3.16	6.0E-61	S70240.1	NT	Ig-beta/B29=CD79b (alternatively spliced) [human, B cells, mRNA Partial, 375 nt]
7728	20660	33958	1.61	6.0E-61	U24498.1	NT	Human autosomal dominant polycystic kidney disease protein 1 (PKD1) gene
8084	20977	34292	1.82	6.0E-61	AF035737.1	NT	Homo sapiens general transcription factor 24 (GTF2I) mRNA, complete cds
235	13333	26247	1.15	6.0E-61	8922990	NT	Homo sapiens hypothetical protein FLJ11316 (FLJ11316), mRNA
235	13333	26248	1.15	6.0E-61	8922990	NT	Homo sapiens hypothetical protein FLJ11316 (FLJ11316), mRNA
380	13465	26382	0.67	6.0E-61	4507500	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
1708	14734	27700	2.45	6.0E-61	4506008	NT	Homo sapiens protein phosphatase 1, regulatory subunit 10 (PPP1R10) mRNA
3083	16134	29030	2.75	6.0E-61	AL163279.2	NT	Homo sapiens chromosome 21 segment HS21C079
3198	16244	29139	1.42	6.0E-61	AB020632.1	NT	Homo sapiens mRNA for KIAA0825 protein, partial cds
4068	17092		1.77	6.0E-61	AJ226041.1	NT	Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3
1784	14810	27778	0.65	4.0E-61	AU140307.1	EST_HUMAN	AU140307 PLACE2 Homo sapiens cDNA clone PLACE2000302 5'
6028	19088	32214	0.51	4.0E-61	7681637	NT	Homo sapiens DKFZP568B023 protein (DKFZP568B023), mRNA
12418	25185		5.43	4.0E-61	AV731140.1	EST_HUMAN	AV731140 HTF Homo sapiens cDNA clone HTFAR801 5'
8992	21921	35277	0.63	3.0E-61	AF160180.1	EST_HUMAN	AF160180 Human mRNA from cd34+ stem cells Homo sapiens cDNA clone CBDAGB04



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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
521	13591	26503	1.23	2.0E-61	8922829	NT	Homo sapiens hypothetical protein FLJ11026 (FLJ11026), mRNA
1240	14276	27219	2.07	2.0E-61	BE168410.1	EST_HUMAN	QV3-HT0513-060400-147-d01 HT0513 Homo sapiens cDNA
1240	14276	27220	2.07	2.0E-61	BE168410.1	EST_HUMAN	QV3-HT0513-060400-147-d01 HT0513 Homo sapiens cDNA
1692	14722	27698	1.6	2.0E-61	N53039.1	EST_HUMAN	y53d11.s1 Scores fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:246453 3' similar to gbL25444 60S RIBOSOMAL PROTEIN L35A (HUMAN);
2689	15883		1.06	2.0E-61	N39397.1	EST_HUMAN	y03f11.1 Scores melanocyte 2N5HM Homo sapiens cDNA clone IMAGE:270189 5'
6694	19730	32930	0.97	2.0E-61	11426166	NT	Homo sapiens ATPase, H+ transporting, lysosomal (vacuolar proton pump) non-catalytic accessory protein 1A (110/118kD) (ATP8A1A), mRNA
6667	22494	35857	1.74	2.0E-61	AV694317.1	EST_HUMAN	AV694317 GKC Homo sapiens cDNA clone GKOELG08 5'
10091	22884		0.89	2.0E-61	AB011108.1	NT	Homo sapiens mRNA for KIAA0536 protein, peritil cds
10433	23322	36740	2.01	2.0E-61	AW500256.1	EST_HUMAN	UI-HF-BN0-akd-f-12-Q-J1.r1 NIH_MGC 50 Homo sapiens cDNA clone IMAGE:3078774 5'
10744	23630	37062	2.81	2.0E-61	11421778	NT	Homo sapiens polymerase (RNA) III (DNA directed) (39kD) (RPC39), mRNA
11321	24240		3.43	2.0E-61	11419729	NT	Homo sapiens ribosomal protein L44 (RPL44), mRNA
13062	25598	31741	1.99	2.0E-61	AW66326.1	EST_HUMAN	QV0-BN0042-170300-162-10 BN0042 Homo sapiens cDNA
458	13530		0.74	1.0E-61	AL163203.2	NT	Homo sapiens chromosome 21 segment HS21C003
799	13854	26790	1.26	1.0E-61	5453929	NT	Homo sapiens origin recognition complex, subunit 2 (yeast homolog)-like (ORC2L) mRNA
1794	14820		1.07	1.0E-61	U32657.1	NT	Human polymorphic trinucleotide repeat in X-linked retinitis pigmentosa (RP3) gene region
1883	14904	27888	3.39	1.0E-61	6005983	NT	Homo sapiens zona pellucida glycoprotein 3A (jperm receptor) (ZP3A), mRNA
2212	15223	28226	1.35	1.0E-61	AW827281.1	EST_HUMAN	xn11b09.y1 NCL_CGAP_LJ5 Homo sapiens cDNA clone IMAGE:2693369 5' similar to contains element MSR1 repetitive element;
4549	17558	30418	0.87	1.0E-61	4759249	NT	Homo sapiens TRAF family member-associated NFKB activator (TANK) mRNA
4549	17558	30419	0.87	1.0E-61	4759249	NT	Homo sapiens TRAF family member-associated NFKB activator (TANK) mRNA
4987	17665	30823	10.94	1.0E-61	AW288181.1	EST_HUMAN	UI-H-BW0-ajf-b-08-Q-J1.s1 NCL_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:2732871 3'
4987	17665	30824	10.94	1.0E-61	AW288181.1	EST_HUMAN	UI-H-BW0-ajf-b-08-Q-J1.s1 NCL_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:2732871 3'
5578	18666	31633	0.67	1.0E-61	M76423.1	NT	H. sapiens carbonic anhydrase VII (CA VII) gene, exons 4, 5, 6, and 7, and complete cds
5887	18956	32073	0.87	1.0E-61	7862303	NT	Homo sapiens KIAA0783 gene product (KIAA0783), mRNA
6099	19160	32293	1.52	1.0E-61	11416991	NT	Homo sapiens survival of motor neuron 1, telomeric (SMN1), mRNA
7228	20138	33377	12.66	1.0E-61	M30135.1	NT	Human P40 T-cell and mast cell growth factor (HP40) gene, complete cds
7450	20391	33661	0.71	1.0E-61	4759171	NT	Homo sapiens SC35-interacting protein 1 (SRP129), mRNA
7556	20492	33781	1.37	1.0E-61	8923130	NT	Homo sapiens hypothetical protein FLJ20128 (FLJ20128), mRNA
7555	20492	33782	1.37	1.0E-61	8923130	NT	Homo sapiens hypothetical protein FLJ20128 (FLJ20128), mRNA
8710	21641	34988	3.04	1.0E-61	11034840	NT	Homo sapiens growth hormone releasing hormone (GHRH), mRNA
8888	21818	35169	3.49	1.0E-61	AF224689.1	NT	Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
9822	22728		3.19	1.0E-61	AW699726.1	EST_HUMAN	MR0-BN0070-040400-010-H01 BN0070 Homo sapiens cDNA
9895	22810	36199	0.87	1.0E-61	11416280	NT	Homo sapiens cadherin 18 (CDH18), mRNA
10532	23418	36833	5.12	1.0E-61	11428892	NT	Homo sapiens KIAA0971 protein (KIAA0971), mRNA
11080	24012	37463	1.88	1.0E-61	11425578	NT	Homo sapiens actinin, alpha 4 (ACTN4), mRNA
11509	24419	37874	1.72	1.0E-61	AB007830.1	NT	Homo sapiens mRNA for CSR2, complete cds
12362	25831	31489	3.87	1.0E-61	11430460	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
12362	25831	31490	3.87	1.0E-61	11430460	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
12705	25360	31797	2.7	1.0E-61	M20809.1	NT	Human kappa-immunoglobulin germline pseudogene (Chr1) variable region (subgroup V kappa1)
12982	25541	31751	10.22	1.0E-61	11418127	NT	Homo sapiens GTP binding protein 1 (GTPBP1), mRNA
10843	23729	37152	1.94	9.0E-62	BE084388.1	EST_HUMAN	RC4-BT0310-110300-015-F10 BT0310 Homo sapiens cDNA
4687	17672	30543	1.24	8.0E-62	AA830420.1	EST_HUMAN	cc66h11.s1 NCI CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1354725 3' similar to SW:POL_MLVRK
13102	25617		2.23	8.0E-62	AA768861.1	EST_HUMAN	P31798 POL POLYPROTEIN ;
1134	14176	27113	2.72	7.0E-62	AV714334.1	EST_HUMAN	nc75g01.s1 NCI CGAP_GCB1 Homo sapiens cDNA clone DCBAMA08 5'
3563	16600	29504	1.02	7.0E-62	PI7480	SWISSPROT	AV714334 DCB Homo sapiens cDNA clone DCBAMA08 5'
6138	19197	32335	1.04	7.0E-62	11427965	NT	NUCLEOLAR TRANSCRIPTION FACTOR 1 (UPSTREAM BINDING FACTOR 1) (UBF-1)
11789	24711	38202	1.61	7.0E-62	AI208681.1	EST_HUMAN	(AUTOANTIGEN NOR-90)
3042	16094		1.66	6.0E-62	U09410.1	NT	Homo sapiens hypothetical protein (FLJ20261), mRNA
3443	16484		5.38	6.0E-62	11418255	NT	qg56a04.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1839160 3' similar to TR:O15103
8073	20986	34302	3.68	6.0E-62	AI762801.1	EST_HUMAN	O15103 HYPOTHETICAL 27.3 KD PROTEIN ;
8073	20986	34303	3.68	6.0E-62	AI762801.1	EST_HUMAN	Human zinc finger protein ZNF131 mRNA, partial cds
8664	21695		0.64	6.0E-62	AW501124.1	EST_HUMAN	Homo sapiens CGI-56 protein (CGI-56), mRNA
8833	21763	35110	1.82	6.0E-62	11431139	NT	w04602.x1 NCI CGAP_CELL1 Homo sapiens cDNA clone IMAGE:2389251 3'
8892	22807	36195	3.49	6.0E-62	AW814393.1	EST_HUMAN	w04602.x1 NCI CGAP_CELL1 Homo sapiens cDNA clone IMAGE:2389251 3'
439	13510	28434	1.44	5.0E-62	AI950528.1	EST_HUMAN	U1-HF-BPop-alt-09-Q-U1.1 NIH_MGC_51 Homo sapiens cDNA clone IMAGE:3072633 5'
2430	15434	28434	0.38	5.0E-62	AJ271735.1	NT	Homo sapiens CGI-18 protein (LOC51008), mRNA
2430	15434	28435	6.38	5.0E-62	AJ271735.1	NT	MR3-ST0203-130100-025-409 ST0203 Homo sapiens cDNA
2631	15629	28622	1.75	5.0E-62	U99487.1	NT	w051e07.x1 NCI CGAP_Lu28 Homo sapiens cDNA clone IMAGE:2547204 3' similar to SW:GG95_HUMAN
2631	15629	28623	1.75	5.0E-62	U99487.1	NT	Q08379 GOLGIN-95 ; contains element MER22 repetitive element ;
3480	18520	29419	2.41	5.0E-62	4506798	NT	Homo sapiens Xq pseudautosomal region ; segment 1/2
							Homo sapiens Xq pseudautosomal region ; segment 1/2
							Human xanthine dehydrogenase/oxidase mRNA, complete cds
							Human xanthine dehydrogenase/oxidase mRNA, complete cds
							Homo sapiens ryanodine receptor 3 (RYR3) mRNA

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4435	17446	30306	2.23	5.0E-62	AA431093.1	EST_HUMAN	zmv78a09.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:782344 3' similar to SW:NRDC_RAT
4674	17679		1.18	5.0E-62	AW908887.1	EST_HUMAN	P47246 NARDILYSIN;
8113	22041	35308	0.72	5.0E-62	4506758	NT	RC5-NN1088-100500-021-H03 NN1089 Homo sapiens cDNA
10048	22964	36353	6.76	6.0E-62	AW410687.1	EST_HUMAN	Homo sapiens tyrosine receptor 3 (RYR3) mRNA
865	13919	28863	3.34	4.0E-62	AW161479.1	EST_HUMAN	h07g09.x1 NIH_MGC.17 Homo sapiens cDNA clone IMAGE:2961616 5'
865	13919	28864	3.34	4.0E-62	AW161479.1	EST_HUMAN	eu71d03.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2781701 5' similar to gb:M37104
866	13919	28863	3.58	4.0E-62	AW161479.1	EST_HUMAN	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
866	13919	28864	3.58	4.0E-62	AW161479.1	EST_HUMAN	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
866	13919	28864	3.58	4.0E-62	AW161479.1	EST_HUMAN	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
2482	15484	28486	1.74	4.0E-62	AB27900.1	EST_HUMAN	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
2482	15484	28486	1.74	4.0E-62	AB27900.1	EST_HUMAN	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
3459	18500		8.31	4.0E-62	4557887	NT	h07g09.x1 NIH_MGC.17 Homo sapiens cDNA clone IMAGE:2961616 5'
6147	19206	32344	1.64	4.0E-62	4506978	NT	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
6551	19593	32781	3.62	4.0E-62	11420654	NT ?	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
7535	20474	33762	1.76	4.0E-62	11421041	NT	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
8082	20994	34312	2.41	4.0E-62	7657057	NT	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
8082	20994	34313	2.41	4.0E-62	7657057	NT	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
8749	21679	35022	1.08	4.0E-62	11429973	NT	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
9405	22333	35697	7.46	4.0E-62	AB033039.1	NT	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
11450	24368	37815	3.37	4.0E-62	278766.1	NT	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
11450	24368	37815	3.37	4.0E-62	278766.1	NT	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
12548	25793		1.52	4.0E-62	11418192	NT	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
12916	25527	31747	1.49	4.0E-62	11418322	NT	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
12965	25623	31744	8.56	4.0E-62	11417862	NT	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
12965	25523	31745	8.56	4.0E-62	11417862	NT	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
13004	25555	31758	1.67	4.0E-62	11430460	NT	ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);

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Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
77	13101	26102	1.03	3.0E-62	4557794	NT	Homo sapiens neurofibromin 2 (bilateral acoustic neuroma) (NF2) mRNA
3093	16144	29040	0.74	3.0E-62	AB040909.1	NT	Homo sapiens mRNA for KIAA1478 protein, partial cds
3093	16144	29041	0.74	3.0E-62	AB040909.1	NT	Homo sapiens mRNA for KIAA1478 protein, partial cds
3763	16796	29584	2.2	3.0E-62	X52858.1	NT	Human cyclophilin-related processed pseudogene
5082	18079	30928	1.22	3.0E-62	AF229180.1	NT	Homo sapiens alpha-aminoadipate semialdehyde synthase mRNA, complete cds
9104	22032	35387	0.84	3.0E-62	AI632733.1	EST_HUMAN	wa33104.x1 NCI_CGAP_Kid111 Homo sapiens cDNA clone IMAGE:2289903 3' similar to contains THR.12
1259	14294	27240	1.74	2.0E-62	AL163284.2	NT	THR repetitive element:
8365	21269	34603	0.42	2.0E-62	AA307490.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C084
8334	22262	35625	5.06	2.0E-62	BF329911.1	EST_HUMAN	EST178374 Colon carcinoma (HCC) cell line Homo sapiens cDNA 5' end
9334	22262	35626	5.06	2.0E-62	BF329911.1	EST_HUMAN	RCO-BN0284-300500-031-e05 BN0284 Homo sapiens cDNA
10689	23555		4.56	2.0E-62	AF224689.1	NT	RCO-BN0284-300500-031-e06 BN0284 Homo sapiens cDNA
12113	24954		8.4	2.0E-62	BF330676.1	EST_HUMAN	Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, end ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds
1070	14114	27054	1.2	1.0E-62	AF248540.1	NT	QV4-BT0257-081199-017-e03 BT0257 Homo sapiens cDNA
1566	14587	27557	16.22	1.0E-62	L78810.1	NT	Homo sapiens intersecin 2 (SH3D1B) mRNA, complete cds
2957	16009	28909	1.24	1.0E-62	AL039044.1	EST_HUMAN	Homo sapiens ADP/ATP carrier protein (ANT-2) gene, complete cds
4460	17471		0.66	1.0E-62	BE166413.1	EST_HUMAN	DKFZp566F104_r1 566 (synonym: hfkd2) Homo sapiens cDNA clone DKFZp566F104 5'
4644	17650	30515	1.47	1.0E-62	8923201	NT	QV0-HT0493-280200-136-h12 HT0493 Homo sapiens cDNA
6542	19585	32770	1.01	1.0E-62	U52111.2	NT	Homo sapiens hypothetical protein FLJ20212 (FLJ20212), mRNA
7494	20434	33713	0.95	1.0E-62	AA490050.1	EST_HUMAN	Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTR), CDM protein (CDM), adrenoleukodystrophy protein >
7505	20444	33727	2.54	1.0E-62	AA722878.1	EST_HUMAN	ab05c02.s1 Straglene fetal retina 937202 Homo sapiens cDNA clone IMAGE:839908 3'
7505	20444	33728	2.54	1.0E-62	AA722878.1	EST_HUMAN	zg99f10.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:408771 3'
9910	22538	35908	1.79	1.0E-62	7662289	NT	zg99f10.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:408771 3'
9910	22538	35907	1.79	1.0E-62	7662289	NT	Homo sapiens KIAA0763 gene product (KIAA0763), mRNA
9946	22572	35942	2.32	1.0E-62	X15533.1	NT	Homo sapiens KIAA0763 gene product (KIAA0763), mRNA
9946	22572	35943	2.32	1.0E-62	X15533.1	NT	H. sapiens lysosomal acid phosphatase gene (EC 3.1.3.2) Exon 9
10086	22879	36765	3.44	1.0E-62	AA465170.1	EST_HUMAN	H. sapiens lysosomal acid phosphatase gene (EC 3.1.3.2) Exon 9
11805	24726	38218	2.2	1.0E-62	Z78598.1	NT	aa33d08.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:815055 3'
12229	25063	38561	1.41	1.0E-62	11424055	NT	H. sapiens flow-sorted chromosome 6 HindIII fragment, SC6pA14D8
12802	25427		3.45	1.0E-62	11418322	NT	Homo sapiens exosome component Rrp46 (LOC556915), mRNA
12993	25548	31754	2.78	1.0E-62	11430460	NT	Homo sapiens cadherin EGF LAG seven-pass 3-type receptor 1 (CELSR1), mRNA
							Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
358	13445	28357	2.34	9.0E-63	AW816405.1	EST_HUMAN	QV4-ST0234-181189-037-05 ST0234 Homo sapiens cDNA
2363	15374		1.58	9.0E-63	C18159.1	EST_HUMAN	C18159 Human placenta cDNA (TFujkwa) Homo sapiens cDNA clone GEN:558C10 5'
4125	17148	30022	11.76	9.0E-63	AB002348.2	NT	Homo sapiens mRNA for KIAA0350 protein, partial cds
4125	17148	30023	11.76	9.0E-63	AB002348.2	NT	Homo sapiens mRNA for KIAA0350 protein, partial cds
5424	18421	38565	4.19	9.0E-63	11418185	NT	Homo sapiens aconitase 2, mitochondrial (ACO2), mRNA
5652	18726	31631	1.49	9.0E-63	Y15066.1	NT	Homo sapiens mRNA for PLB kinase
7546	20484	33773	3.99	9.0E-63	11426985	NT	Homo sapiens nucleoporin 88kD (NUP88), mRNA
8382	21266	34601	0.56	9.0E-63	4885844	NT	Homo sapiens pyruvate dehydrogenase kinase, isoenzyme 3 (PDK3) mRNA
8901	21831	35185	1.83	9.0E-63	11421160	NT	Homo sapiens Ras association (RalGDS/AF-6) domain family 2 (RASSF2), mRNA
2367	15373	28378	1.68	8.0E-63	4557734	NT	Homo sapiens monoamine oxidase A (MAOA), nuclear gene encoding mitochondrial protein, mRNA
2397	15402	28408	1.83	8.0E-63	5031810	NT	Homo sapiens IL2-inducible T-cell kinase (ITK), mRNA
3522	16560	28462	3.97	8.0E-63	AF198349.1	NT	Gallus gallus Dach2 protein (Dach2) mRNA, complete cds
3522	16560	28463	3.97	8.0E-63	AF198349.1	NT	Gallus gallus Dach2 protein (Dach2) mRNA, complete cds
4365	17378	30243	3.79	8.0E-63	AL163268.2	NT	Homo sapiens chromosome 21 segment HS21C068
957	14007		2.12	7.0E-63	AB72137.1	EST_HUMAN	wm55g11.x1 NCL CGAP_U12 Homo sapiens cDNA clone IMAGE:2439808 3'
5523	18602		94.77	9.0E-63	AA420803.1	EST_HUMAN	nc83102.1 NCL CGAP_P11 Homo sapiens cDNA clone IMAGE:745947 similar to gb:Y00361 60S
9432	22360	35723	0.7	5.0E-63	11526464	NT	RIBOSOMAL PROTEIN (HUMAN);
3366	18410	29312	0.85	4.0E-63	AL163278.2	NT	Homo sapiens chromosome 21 segment HS21C078
3878	18905	20785	1.68	4.0E-63	AB014607.1	NT	Homo sapiens mRNA for KIAA0707 protein, partial cds
3878	18905	29786	1.66	4.0E-63	AB014607.1	NT	Homo sapiens mRNA for KIAA0707 protein, partial cds
8715	19751	32855	2.22	4.0E-63	AW750372.1	EST_HUMAN	GM3-BT0595-190100-072-09 BT0595 Homo sapiens cDNA
8715	19751	32856	2.22	4.0E-63	AW750372.1	EST_HUMAN	GM3-BT0595-190100-072-09 BT0595 Homo sapiens cDNA
11572	24481	37948	1.75	4.0E-63	AW134709.1	EST_HUMAN	UI-H-B11-abq-e-02-Q-U1.s1 NCL CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2712482 3'
11572	24481	37949	1.75	4.0E-63	AW134709.1	EST_HUMAN	UI-H-B11-abq-e-02-Q-U1.s1 NCL CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2712482 3'
1950	14970	27951	1.24	3.0E-63	AB018280.1	NT	Homo sapiens mRNA for KIAA0717 protein, partial cds
2830	16819	28814	1.43	3.0E-63	J00310.1	NT	Human Mat-IRNA-1 gene 1
2859	14301	27249	8.62	3.0E-63	6005963	NT	Homo sapiens zinc finger protein 144 (ZNF144), mRNA
6748	19782	32994	30.52	3.0E-63	11545810	NT	Homo sapiens hepatocellular carcinoma antigen gene 520 (LOC83928), mRNA
10228	23119	38521	0.92	3.0E-63	BE876158.1	EST_HUMAN	601485656F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3888253 5'
10228	23119	38522	0.92	3.0E-63	BE876158.1	EST_HUMAN	601485656F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3888253 5'
204	13303	28219	1.22	2.0E-63	U07804.1	NT	Human DNA topoisomerase I mRNA, partial cds
211	13310	28227	1.47	2.0E-63	4855226	NT	Homo sapiens eyes absent (Drosophila) homolog 2 (EYA2), mRNA

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
520	13590		2.42	2.0E-63	4557624	NT	Homo sapiens glutamate-cysteine ligase (gamma-glutamylcysteine synthetase), catalytic (72.8kD) (GLCLC) mRNA
851	13906	26848	8.15	2.0E-63	7657042	NT	Homo sapiens Down syndrome candidate region 1 (DSCR1), mRNA
1585	14617	27580	1.53	2.0E-63	AB030388.1	NT	Homo sapiens RHCE mRNA for Rh blood CE group antigen polypeptide, complete cds
1586	14617	27581	1.53	2.0E-63	AB030388.1	NT	Homo sapiens RHCE mRNA for Rh blood CE group antigen polypeptide, complete cds
1791	14817	27786	1.64	2.0E-63	BE410739.1	EST_HUMAN	601301627F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3636103 5'
3329	16375	29276	2.29	2.0E-63	AF109718.1	NT	Homo sapiens chromosome 3 subtelomeric region
3978	17007	29895	2.87	2.0E-63	L38891.1	NT	Homo sapiens polycystic kidney disease-associated protein (PKD1) gene, complete cds
4974	17972	30833	1.47	2.0E-63	AF111167.2	NT	Homo sapiens jun dimerization protein gene, partial cds; cfoa gene, complete cds; and unknown gene
5443	25626	31250	3.83	2.0E-63	11419429	NT	Homo sapiens similar to ectonucleotide pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC63214), mRNA
6101	19162	32296	2.9	2.0E-63	BF373541.1	EST_HUMAN	QV1-FT0170-040700-265-c05 FT0170 Homo sapiens cDNA
6101	19162	32297	2.9	2.0E-63	BF373541.1	EST_HUMAN	QV1-FT0170-040700-265-c05 FT0170 Homo sapiens cDNA
6427	19474	32648	0.91	2.0E-63	11421940	NT	Homo sapiens protein kinase, cAMP-dependent/ regulatory, type II, beta (PRKAR2B), mRNA
6427	19474	32649	0.91	2.0E-63	11421940	NT	Homo sapiens protein kinase, cAMP-dependent/ regulatory, type II, beta (PRKAR2B), mRNA
							Human germline T-cell receptor beta chain Dopamine-beta-hydroxylase-like, TRY1, TRY2, TRY3, TCRBV27S1P, TCRBV22S1A2N1T, TCRBV6S1A1T, TCRBV7S1A1N2T, TCRBV6S1A1T, TCRBV13S3, TCRBV6S7P, TCRBV7S3A2T, TCRBV13S2A1T, TCRBV6S2A2PT, TCRBV7S2A1N4T, TCRBV13S9/13S>
6999	20026	33259	1.09	2.0E-63	U66059.1	NT	Homo sapiens MIST mRNA, partial cds
7052	20078	33311	0.68	2.0E-63	AB032369.1	NT	Homo sapiens MIST mRNA, partial cds
7052	20078	33312	0.68	2.0E-63	AB032369.1	NT	Homo sapiens MIST mRNA, partial cds
7430	20128	33368	1.37	2.0E-63	9910365	NT	Homo sapiens Carbonic anhydrase-related protein 10 (LOC56834), mRNA
7430	20128	33369	1.37	2.0E-63	9910365	NT	Homo sapiens Carbonic anhydrase-related protein 10 (LOC56834), mRNA
8252	21157	34490	0.64	2.0E-63	AB046844.1	NT	Homo sapiens mRNA for KIAA1624 protein, partial cds
8331	21236	34569	0.46	2.0E-63	11421814	NT	Homo sapiens similar to sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3A (H. sapiens) (LOC63232), mRNA
9097	22026	35382	4.21	2.0E-63	AL163210.2	NT	Homo sapiens chromosome 21 segment HS21C010
9606	22532	35900	1.34	2.0E-63	11420949	NT	Homo sapiens kinesin family member 3B (KIF3B), mRNA
9606	22532	35901	1.34	2.0E-63	11420949	NT	Homo sapiens kinesin family member 3B (KIF3B), mRNA
10448	23337	36754	1.32	2.0E-63	AL163218.2	NT	Homo sapiens chromosome 21 segment HS21C016
11187	24113	37561	7.04	2.0E-63	N78945.1	EST_HUMAN	zb18b05.s1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:302385 3' similar to
11212	24139	37588	3.23	2.0E-63	AF098810.1	NT	gb:X17206.40S RIBOSOMAL PROTEIN S4 (HUMAN); Homo sapiens neurixin III-alpha gene, partial cds

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11212	24138	37589	3.23	2.0E-63	AF099810.1	NT	Homo sapiens neurodin III-alpha gene, partial cds
12446	25743	31569	5.21	2.0E-63	11418185	NT	Homo sapiens acylase 2, mitochondrial (ACO2), mRNA
13077	25593	31730	2.15	2.0E-63	AB011399.1	NT	Homo sapiens gene for AF-6, complete cds
4451	17461	30318	3.64	1.0E-63	F08485.1	EST_HUMAN	HSC2VD111 normalized infant brain cDNA Homo sapiens cDNA clone c-zvd11
4451	17461	30319	3.64	1.0E-63	F08485.1	EST_HUMAN	HSC2VD111 normalized infant brain cDNA Homo sapiens cDNA clone c-zvd11
5537	18616	31466	0.87	1.0E-63	AJ271736.1	NT	Homo sapiens Xq pseudautosomal region, segment 2/2
5978	18043	32166	1.23	1.0E-63	AW582266.1	EST_HUMAN	GVG-ST0215-060100-083-b09 ST0215 Homo sapiens cDNA
6655	19694	32888	0.68	1.0E-63	AW451950.1	EST_HUMAN	UI-H-B13-alt-h-02-Q-U1.s1 NCL CGAP_Sub5 Homo sapiens cDNA clone IMAGE:3068763 3'
6655	19694	32889	0.68	1.0E-63	AW451950.1	EST_HUMAN	UI-H-B13-alt-h-02-Q-U1.s1 NCL CGAP_Sub5 Homo sapiens cDNA clone IMAGE:3068763 3'
9042	21971		3.2	1.0E-63	AL163247.2	NT	Homo sapiens chromosome 21 segment HS21C047
13046	25843		12.74	1.0E-63	AL163207.2	NT	Homo sapiens chromosome 21 segment HS21C007
6195	19251	32396	0.52	9.0E-64	AW401433.1	EST_HUMAN	UI-HF-BK0-aad-b-08-Q-U1.r1 NIH_MGC_36 Homo sapiens cDNA clone IMAGE:3053153 5'
8448	21380	34721	5.81	9.0E-64	AA78186.1	EST_HUMAN	tm50b07.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2161525 3'
1072	14116		9.22	8.0E-64	BE280796.1	EST_HUMAN	601155232F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3139038 5'
6380	19429	32597	3.97	8.0E-64	BE885755.1	EST_HUMAN	601508968F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3910336 5'
12274	25090		3.73	8.0E-64	11418177	NT	Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA
12325	25125		3.1	8.0E-64	T60651.1	EST_HUMAN	y68b02.r1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:79179 5'
3591	16628		0.99	7.0E-64	BE394321.1	EST_HUMAN	601311455F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3633204 5'
4844	17845	30712	2.34	7.0E-64	4507490	NT	Homo sapiens thimet oligopeptidase 1 (THOP1), mRNA
4844	17845	30713	2.34	7.0E-64	4507490	NT	Homo sapiens thimet oligopeptidase 1 (THOP1), mRNA
8303	21207	34542	0.52	7.0E-64	4508789	NT	Homo sapiens IQ motif containing GTPase activating protein 1 (IQGAP1), mRNA
10536	23422	36837	2.77	7.0E-64	Y07848.1	NT	Homo sapiens EWS, gnr22, rrp22 and bam22 genes
1751	14778	27748	2.63	6.0E-64	A1651992.1	EST_HUMAN	wb51e07.x1 NCL CGAP_G08 Homo sapiens cDNA clone IMAGE:2309220 3' similar to gb:M15182 BETA-GLUCURONIDASE PRECURSOR (HUMAN);
1751	14778	27747	2.63	6.0E-64	A1651992.1	EST_HUMAN	wb51e07.x1 NCL CGAP_G08 Homo sapiens cDNA clone IMAGE:2309220 3' similar to gb:M15182 BETA-GLUCURONIDASE PRECURSOR (HUMAN);
3167	16217	29106	9.85	6.0E-64	AW028445.1	EST_HUMAN	wv13e03.x1 NCL CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2529436 3'
3167	16217	29107	9.86	6.0E-64	AW028445.1	EST_HUMAN	wv13e03.x1 NCL CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2529436 3'
5816	18888	31699	2.49	6.0E-64	Y18933.1	NT	Homo sapiens MCP-1 gene and enhancer region
5816	18888	32000	2.49	6.0E-64	Y18933.1	NT	Homo sapiens MCP-1 gene and enhancer region
5838	18909	32024	4.1	6.0E-64	M13975.1	NT	Homo sapiens protein Kinase C beta-II type (PRKCB1), mRNA, complete cds
5847	18918	32032	0.47	6.0E-64	6912461	NT	Homo sapiens atrophin-1 interacting protein 1, epsilon receptor interacting protein, 1 (KIAA0705), mRNA
6042	19104	32233	0.75	6.0E-64	11422189	NT	Homo sapiens calcitonin receptor (CALOR), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6042	19104	32234	0.75	6.0E-64	11422189	NT	Homo sapiens calcitonin receptor (CALCR), mRNA
7605	20540	33829	2.54	6.0E-64	11525879	NT	Homo sapiens mesenchyme homeo box 1 (MEOX1), mRNA
7605	20540	33830	2.54	6.0E-64	11525879	NT	Homo sapiens mesenchyme homeo box 1 (MEOX1), mRNA
8667	22762	36171	8.48	6.0E-64	11420655	NT	Homo sapiens acyl-CoA synthetase (LOC55802), mRNA
10037	22937	36326	1.7	6.0E-64	AF274753.1	NT	Homo sapiens progressive ankylosis-like protein (ANK), mRNA, complete cds
10240	23131	36534	2.23	6.0E-64	ST6475.1	NT	ttkC [human, brain, mRNA, 2715 nt]
11208	24134	37582	4.89	6.0E-64	11420197	NT	Homo sapiens stromal antigen 3 (STAG3), mRNA
11208	24134	37583	4.89	6.0E-64	11420197	NT	Homo sapiens stromal antigen 3 (STAG3), mRNA
11456	16217	29106	1.77	6.0E-64	AW026445.1	EST_HUMAN	wv13e03.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2528438 3'
11456	16217	29107	1.77	6.0E-64	AW026445.1	EST_HUMAN	wv13e03.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2528438 3'
12462	25209	31853	3.51	6.0E-64	11526198	NT	Homo sapiens interleukin 10 receptor, beta (IL10RB), mRNA
845	13900	26839	2.66	5.0E-64	AF231919.1	NT	Homo sapiens chromosome 21 unknown mRNA
845	13900	26840	2.66	5.0E-64	AF231919.1	NT	Homo sapiens chromosome 21 unknown mRNA
1368	14398	27352	2.65	5.0E-64	AB020710.1	NT	Homo sapiens mRNA for KIAA0903 protein, partial cds
1444	14475	27433	1.71	5.0E-64	L40933.1	NT	Homo sapiens phosphoglucomutase-related protein (PGMRP) gene, complete cds
1444	14475	27434	1.71	5.0E-64	L40933.1	NT	Homo sapiens phosphoglucomutase-related protein (PGMRP) gene, complete cds
1740	14787	27738	1.36	5.0E-64	U89368.1	NT	Human (3)mbt protein homolog mRNA, complete cds
2674	14530	27483	3.68	5.0E-64	7662205	NT	Homo sapiens KIAA0618 gene product (KIAA0618), mRNA
2674	14530	27494	3.68	5.0E-64	7662205	NT	Homo sapiens KIAA0618 gene product (KIAA0618), mRNA
4043	17070	29956	9.61	5.0E-64	AF017433.1	NT	Homo sapiens putative transcription factor CR53 (CR53), mRNA, partial cds
4197	17216	30082	1.09	5.0E-64	AF017433.1	NT	Homo sapiens mRNA for KIAA0903 protein, partial cds
8344	21249	34584	0.55	4.0E-64	BE794607.1	EST_HUMAN	601590382F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944397 5'
11252	24176	37624	2.14	4.0E-64	AW813783.1	EST_HUMAN	RC3-ST0187-120200-015-a03 ST0197 Homo sapiens cDNA
11252	24176	37625	2.14	4.0E-64	AW813783.1	EST_HUMAN	RC3-ST0187-120200-015-a03 ST0197 Homo sapiens cDNA
2213	15224	28227	10.14	3.0E-64	C18895.1	EST_HUMAN	C18895 Human placenta cDNA (Tfujware) Homo sapiens cDNA clone GEN-566E02 5'
3299	16346	29250	0.83	3.0E-64	BE794381.1	EST_HUMAN	601580566F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943577 5'
3504	16542	29441	1.54	3.0E-64	AV711714.1	EST_HUMAN	AV711714 DCA Homo sapiens cDNA clone DCAAMC01 5'
3504	16542	29442	1.54	3.0E-64	AV711714.1	EST_HUMAN	AV711714 DCA Homo sapiens cDNA clone DCAAMC01 5'
6318	19368	32537	1.42	3.0E-64	Z26273.1	NT	H. sapiens isoform 1 gene for L-type calcium channel, exon 28
6398	19639	32619	0.59	3.0E-64	AW60861.1	EST_HUMAN	U1HF-BP0p-ak-c-05-0-JL1 NIH_MGC_51 Homo sapiens cDNA clone IMAGE:3073161 5'
6769	19803	33014	3.06	3.0E-64	BF370000.1	EST_HUMAN	RC6-FN0019-290600-011-G11 FN0019 Homo sapiens cDNA
9035	21964	35323	1.88	3.0E-64	AF248953.1	NT	Homo sapiens gdgl matrix protein GM130 (GO1GA2), mRNA, complete cds
9035	21964	35324	1.88	3.0E-64	AF248953.1	NT	Homo sapiens gdgl matrix protein GM130 (GO1GA2), mRNA, complete cds



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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
9082	21991	35343	2.84	3.0E-64	BE206521.1	EST_HUMAN	bb72h12.y1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3047975 5' similar to gb1.08069 DNAAJ
9062	21991	35344	2.84	3.0E-64	BE206521.1	EST_HUMAN	PROTEIN HOMOLOG 2 (HUMAN);
9961	22866	36253	1.78	3.0E-64	AL163246.2	NT	bb72h12.y1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3047975 5' similar to gb1.08069 DNAAJ
9961	22866	36254	1.78	3.0E-64	AL163246.2	NT	PROTEIN HOMOLOG 2 (HUMAN);
10045	22961	36349	0.75	3.0E-64	AW977384.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C046
10045	22961	36350	0.75	3.0E-64	AW977384.1	EST_HUMAN	EST1389493 IMAGE resequences, MAGO Homo sapiens cDNA
12115	24956	36459	2.03	3.0E-64	AL163227.2	NT	EST1389493 IMAGE resequences, MAGO Homo sapiens cDNA
1116	14157	27096	0.86	2.0E-64	AA609940.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C027
1424	14455	27409	1.96	2.0E-64	4767701	NT	af09d08.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1031151 3'
2552	15552	28556	2.34	2.0E-64	AI927030.1	EST_HUMAN	Homo sapiens eIF-4E-like cap-binding protein (4EHP) mRNA
2558	15557	28557	4.95	2.0E-64	AL163246.2	NT	wc87b01.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2462281 3' similar to contains element L1 repetitive element
6238	19292	32452	2.09	2.0E-64	AU124387.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C046
6490	19534	32712	1.08	2.0E-64	AF113708.1	NT	Homo sapiens chromosome 21 segment HS21C046
6760	19794	33008	5.25	2.0E-64	BF668537.1	EST_HUMAN	AU124387 NT2RM2 Homo sapiens cDNA clone NT2RM2002113 5'
6877	19808	33123	1.35	2.0E-64	AI078387.1	EST_HUMAN	Homo sapiens angiotensin 4 (ANG4) mRNA, partial cds
6998	20025	33258	3.9	2.0E-64	M77185.1	NT	G02123474F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4280395 5'
8320	21225	34559	0.48	2.0E-64	11431054	NT	oz29b03.x1 Soares_testis_Nb2IF8_9w Homo sapiens cDNA clone IMAGE:1676717 3'
8406	21309	34641	0.53	2.0E-64	AW906785.1	EST_HUMAN	H. sapiens dopamine receptor D5 pseudogene 1, partial cds
9226	22154	35505	0.86	2.0E-64	11434008	NT	Homo sapiens ataxin 2-binding protein 1 (A2BP1), mRNA
9226	22154	35506	0.86	2.0E-64	11434008	NT	QV1-HT0413-010200-059-h12 HT0413 Homo sapiens cDNA
9772	22696	36082	1.29	2.0E-64	AU192570.1	EST_HUMAN	Homo sapiens lymphocyte cytosolic protein 1 (L-plasin) (LCP1), mRNA
10485	23373	36788	0.55	2.0E-64	T06397.1	EST_HUMAN	Homo sapiens lymphocyte cytosolic protein 1 (L-plasin) (LCP1), mRNA
10485	23373	36789	0.56	2.0E-64	T06397.1	EST_HUMAN	AU132570 NT2RP4 Homo sapiens cDNA clone NT2RP4000109 5'
11201	24127	37574	2.3	2.0E-64	BF528114.1	EST_HUMAN	EST04286 Fetal brain, Stratiogene (cat#936206) Homo sapiens cDNA clone HFBD588
11489	24401	37851	4.81	2.0E-64	AI922911.1	EST_HUMAN	EST04286 Fetal brain, Stratiogene (cat#936206) Homo sapiens cDNA clone HFBD588
11489	24401	37852	4.81	2.0E-64	AI922911.1	EST_HUMAN	G02042882F1 NCL_CGAP_Bn67 Homo sapiens cDNA clone IMAGE:4180556 5'
11982	24586	39063	1.71	2.0E-64	AW864773.1	EST_HUMAN	wn81b06.x1 NCL_CGAP_U11 Homo sapiens cDNA clone IMAGE:2452211 3'
12391	25167	31873	2	2.0E-64	H55182.1	EST_HUMAN	wn81b06.x1 NCL_CGAP_U11 Homo sapiens cDNA clone IMAGE:2452211 3'
12788	25424		1.86	2.0E-64		EST_HUMAN	PM2-SN0018-220300-002-e12 SN0018 Homo sapiens cDNA
277	13372	26286	1.52	1.0E-64	AF231919.1	NT	Homo sapiens period (Drosophila) homolog 3 (PER3), mRNA
						EST_HUMAN	CHR220101 Chromosome 22 exon Homo sapiens cDNA clone C22_132 5'
						NT	Homo sapiens chromosome 21 unknown mRNA

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1803	14823	27795	10.06	1.0E-64	A1929419.1	EST_HUMAN	au60c01.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2519136 3' similar to gb:L21696_cds1 PROTHYMOSIN ALPHA (HUMAN); contains element MSR1 repetitive element ;
3570	16607	29511	6.12	1.0E-64	AF196779.1	NT	Homo sapiens transcription factor (GHM enhancer 3, JM11 protein, JM4 protein, JM5 protein, T54 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaplophysin genes, complete cds; and L-type calcium channel $\alpha$
3646	16582	29579	1.12	1.0E-64	AF228527.1	NT	Homo sapiens TRIAD3 mRNA, partial cds
3646	16582	29580	1.12	1.0E-64	AF228527.1	NT	Homo sapiens TRIAD3 mRNA, partial cds
3972	17000	29887	0.67	1.0E-64	8622829	NT	Homo sapiens hypothetical protein FLJ11026 (FLJ11026), mRNA
10566	23452	36873	1.34	1.0E-64	AA042975.1	EST_HUMAN	zk53108.s1 Soares_pregnant uterus_NbHPU Homo sapiens cDNA clone IMAGE:486567 3'
12367	25153		1.98	1.0E-64	AL163246.2	NT	Homo sapiens chromosome 21 segment HS21C046
2295	15303	28309	1.89	9.0E-65	X89211.1	NT	H. sapiens DNA for endogenous retroviral like element
2295	15303	28310	1.89	9.0E-65	X89211.1	NT	H. sapiens DNA for endogenous retroviral like element
11966	24809		16.21	9.0E-65	BF330676.1	EST_HUMAN	QV4-BT0257-081199-017-e03 BT0257 Homo sapiens cDNA
11941	24785	38281	3.88	8.0E-65	A1929244.1	EST_HUMAN	au58107.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2519005 3' similar to SW:RL21_HUMAN P46778 605 RIBOSOMAL PROTEIN L21 ;
10652	23538	36972	2.26	7.0E-65	BE081653.1	EST_HUMAN	QV2-BT0635-240400-182-c02 BT0635 Homo sapiens cDNA
1083	14127	27065	0.89	6.0E-65	AV721898.1	EST_HUMAN	AV721898 HTB Homo sapiens cDNA clone HTBBZC06 5'
1937	14958		7.75	8.0E-65	AA550929.1	EST_HUMAN	196610.s1 NCI_CGAP_P111 Homo sapiens cDNA clone IMAGE:999379 similar to gb:K03002 60S RIBOSOMAL PROTEIN L32 (HUMAN);
6851	19883	33097	0.7	6.0E-65	AA503892.1	EST_HUMAN	nh37807.s1 NCI_CGAP_P15 Homo sapiens cDNA clone IMAGE:954517
9305	22233	35593	1.27	6.0E-65	AW083252.1	EST_HUMAN	xc07b09.x1 NCI_CGAP_Co21 Homo sapiens cDNA clone IMAGE:2583545 3' similar to TR:Q63306 Q63306 LONG INTERSPERSED REPETITIVE DNA CONTAINING 7 ORFS ; contains L1.b2 L1 repetitive element ;
9563	22490	36861	4.74	6.0E-65	AA427878.1	EST_HUMAN	zv53b06.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:773747 3'
9563	22490	35852	4.74	6.0E-65	AA427878.1	EST_HUMAN	zv53b06.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:773747 3'
9623	22549	35920	0.75	6.0E-65	A1085314.1	EST_HUMAN	qf18h05.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:1750425 3'
9623	22549	35921	0.75	6.0E-65	A1085314.1	EST_HUMAN	qf18h05.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:1750425 3'
11308	24227	37673	2.94	6.0E-65	BE567816.1	EST_HUMAN	601340485F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3682677 5'
11928	24773	38271	2.05	6.0E-65	AL183210.2	NT	Homo sapiens chromosome 21 segment HS21C010
1382	14414	27368	1.25	5.0E-65	7661951	NT	Homo sapiens KIAA0156 gene product (KIAA0156), mRNA
1382	14414	27369	1.25	5.0E-65	7661951	NT	Homo sapiens KIAA0156 gene product (KIAA0156), mRNA
2163	15181	28187	0.97	6.0E-65	AB033788.1	NT	Homo sapiens hPAD-colony10 mRNA for peptidylarginine deiminase type I, complete cds
3300	16347	29251	1.99	5.0E-65	4507848	NT	Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA
3300	16347	29252	1.98	5.0E-65	4507848	NT	Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA

Single Exon Probes Expressed in Adult Liver

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7194	20194	33438	0.63	5.0E-65	4504808	NT	Homo sapiens interferon-related development 1 (IFRD1), mRNA
10945	23830	37256	1.2	5.0E-65	AF009668.1	NT	Multiple sclerosis associated retrovirus polyprotein (pol) mRNA, partial cds
206	13305	26222	1.36	4.0E-65	AL120419.1	EST_HUMAN	DKFZp761G108_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761G108 5'
769	13826	28756	1.18	4.0E-65	AI266468.1	EST_HUMAN	qm49e01.x1 Soares_placenta_8to9weeks_2NHP8to9W Homo sapiens cDNA clone IMAGE:1891800 3'
769	13826	28757	1.18	4.0E-65	AI266468.1	EST_HUMAN	qm49e01.x1 Soares_placenta_8to9weeks_2NHP8to9W Homo sapiens cDNA clone IMAGE:1891800 3'
1106	14148	27088	0.96	4.0E-65	4828735	NT	Homo sapiens fragile X mental retardation, autosomal homolog 1 (FXR1), mRNA
1504	14535	27498	11.58	4.0E-65	4506636	NT	Homo sapiens ribosomal protein L34 (RPL34) mRNA
2359	15366	28369	1.1	4.0E-65	BE221469.1	EST_HUMAN	hu25e04.x1 NCI_CGAP_Mel15 Homo sapiens cDNA clone IMAGE:3171102 3'
2359	15366	28370	1.1	4.0E-65	BE221469.1	EST_HUMAN	hu25e04.x1 NCI_CGAP_Mel15 Homo sapiens cDNA clone IMAGE:3171102 3'
4029	17056	29945	1.09	4.0E-65	AW993185.1	EST_HUMAN	RC2-BN0033-160200-013-a03 BN0033 Homo sapiens cDNA
6395	19444	32613	4.32	4.0E-65	AB033093.1	NT	Homo sapiens mRNA for KIAA1267 protein, partial cds
6396	19444	32614	4.32	4.0E-65	AB033093.1	NT	Homo sapiens mRNA for KIAA1267 protein, partial cds
7443	20384	33653	0.59	4.0E-65	AY008372.1	NT	Homo sapiens oxysterol binding protein-related protein 3 (ORP3) mRNA, complete cds
7476	20416	33694	0.98	4.0E-65	MT19879.1	NT	Human clabardin 27 gene, exons 10 and 11, and L1 and Alu repeats
7588	20524	33813	2.01	4.0E-65	11545780	NT	Homo sapiens hypothetical protein FLJ22087 (FLJ22087), mRNA
7980	20901	34216	0.67	4.0E-65	U40372.1	NT	Human 3',5' cyclic nucleotide phosphodiesterase (HSPDE1C3A) mRNA, partial cds
7980	20901	34217	0.67	4.0E-65	U40372.1	NT	Human 3',5' cyclic nucleotide phosphodiesterase (HSPDE1C3A) mRNA, partial cds
8335	21240	34572	0.56	4.0E-65	U39656.1	NT	Human MAP kinase kinase 6 (MKK6) mRNA, complete cds
8424	21356	34693	0.74	4.0E-65	5453765	NT	Homo sapiens nel (chicken)-like 2 (NELL2), mRNA
8424	21356	34694	0.74	4.0E-65	5453765	NT	Homo sapiens nel (chicken)-like 2 (NELL2), mRNA
9688	22814	35987	0.77	4.0E-65	11429127	NT	Homo sapiens Janus kinase 2 (a protein tyrosine kinase) (JAK2), mRNA
11053	23937		1.62	4.0E-65	AJ277546.2	NT	Homo sapiens WEE1 gene for protein kinase and partial ZNF143 gene for zinc finger transcription factor
11542	24452	37915	1.63	4.0E-65	AF119846.1	NT	Homo sapiens PRO1474 mRNA, complete cds
100	13214	28127	2.79	3.0E-65	5031876	NT	Homo sapiens pre-B-cell colony-enhancing factor (PBEF) mRNA
101	13214	28127	2.07	3.0E-65	5031876	NT	Homo sapiens pre-B-cell colony-enhancing factor (PBEF) mRNA
1260	15850		4.62	3.0E-65	X78932.1	NT	H. sapiens HZF9 mRNA for zinc finger protein
1845	14868	27850	1.53	3.0E-65	AI000692.1	EST_HUMAN	ov23003.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1638173 3' similar to contains element
3321	18367	28289	1.13	3.0E-65	4504950	NT	MSR1 repetitive element;
							Homo sapiens laminin, beta 1 (LAMB1), mRNA
3785	16816	29703	1.54	3.0E-65	AI000692.1	EST_HUMAN	ov23003.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1638173 3' similar to contains element
							MSR1 repetitive element;

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4760	17765	30628	1.22	3.0E-65	6912385	NT	Homo sapiens rab8 GTPase activating protein (GAP and centrosome-associated) (GAPCENA), mRNA
10571	23457	36877	1.63	3.0E-65	BE787366.1	EST_HUMAN	601479896F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3882405 5'
11827	23962	37398	10.67	3.0E-66	AA430008.1	EST_HUMAN	zw58a06.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:781042 5'
3464	16504	29406	0.88	2.0E-65	BF680294.1	EST_HUMAN	602155062F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4295966 5'
4035	17052	29951	0.75	2.0E-65	AF114488.1	NT	Homo sapiens Intersectin short isoform (ITSN), mRNA, complete cds
6815	19848		6.77	2.0E-65	BE263373.1	EST_HUMAN	601190893F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3534741 5'
7492	20432	33711	22.59	2.0E-65	BF576922.1	EST_HUMAN	602134359F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4289285 5'
9404	22332	35695	1.17	2.0E-65	AK024463.1	NT	Homo sapiens mRNA for FLJ00056 protein, partial cds
9404	22332	35696	1.17	2.0E-65	AK024463.1	NT	Homo sapiens mRNA for FLJ00056 protein, partial cds
12324	25124		5.37	2.0E-65	AA307904.1	EST_HUMAN	EST178756 Colon carcinoma (HCC) cell line Homo sapiens cDNA 5' end similar to endogenous retrovirus
12764	25728		2.46	2.0E-65	BF246086.1	EST_HUMAN	601834033F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4073769 5'
83	13206		0.86	1.0E-65	BF125544.1	EST_HUMAN	601763498F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:4026501 5'
582	13631	26540	1.49	1.0E-65	7657495	NT	Homo sapiens putative Rab5 GDP/GTP exchange factor homologue (RABEX5), mRNA
1886	14888	27869	1.11	1.0E-65	AB026898.1	NT	Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds)
2054	15071	28072	0.97	1.0E-65	AB040946.1	NT	Homo sapiens mRNA for KIAA1513 protein, partial cds
3430	16471	29379	0.77	1.0E-65	BE466681.1	EST_HUMAN	h224a09.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:3208888 3'
4084	17109	29987	1.76	1.0E-65	4504082	NT	Homo sapiens glypican 4 (GPC4), mRNA
4084	17109	29988	1.78	1.0E-65	4504082	NT	Homo sapiens glypican 4 (GPC4), mRNA
4302	17316	30182	2.3	1.0E-65	AW029340.1	EST_HUMAN	wx09c09.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2543152 3'
4302	17316	30183	2.3	1.0E-65	AW029340.1	EST_HUMAN	wx09c09.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2543152 3'
5468	18549	31389	0.58	1.0E-65	BE089509.1	EST_HUMAN	QV0-BT0702-170400-194-109 B.T0702 Homo sapiens cDNA
5468	18549	31390	0.58	1.0E-65	BE089509.1	EST_HUMAN	QV0-BT0702-170400-194-109 B.T0702 Homo sapiens cDNA
5665	18739	31648	0.63	1.0E-65	AI243738.1	EST_HUMAN	qh88r07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1854109 3' similar to TR:Q07823
8829	21759	35104	1.86	1.0E-65	AW820481.1	EST_HUMAN	Q07823 MAC30 PROTEIN
8829	21759	35105	1.86	1.0E-65	AW820481.1	EST_HUMAN	QV2-ST0298-140200-042-f12 S.T0298 Homo sapiens cDNA
8857	21787	35136	0.67	1.0E-65	BE732118.1	EST_HUMAN	QV2-ST0298-140200-042-f12 S.T0298 Homo sapiens cDNA
8857	21787	35137	0.67	1.0E-65	BE732118.1	EST_HUMAN	601566124F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3841012 5'
8894	21824	35175	2.44	1.0E-65	AU141295.1	EST_HUMAN	601566124F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3841012 5'
8894	21824	35176	2.44	1.0E-65	AU141295.1	EST_HUMAN	AU141295 THYRO1 Homo sapiens cDNA clone THYRO1000358 5'
9399	22327	35689	0.93	1.0E-65	BF698707.1	EST_HUMAN	AU141295 THYRO1 Homo sapiens cDNA clone THYRO1000358 5'
9399	22327	35689	0.93	1.0E-65	BF698707.1	EST_HUMAN	602126239F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4283313 5'

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
9571	22493	35851	2.05	1.0E-65	AU129040.1	EST_HUMAN	AU129040 NT2RP2 Homo sapiens cDNA clone NT2RP2004714 5'
9571	22499	35852	2.05	1.0E-65	AU129040.1	EST_HUMAN	AU129040 NT2RP2 Homo sapiens cDNA clone NT2RP2004714 5'
9582	22609		3.43	1.0E-65	11431894	NT	Homo sapiens Insitol 1,4,5-triphosphate receptor, type 1 (ITPR1), mRNA
10010	22827	36214	6.56	1.0E-65	AI191716.1	EST_HUMAN	qd56a02.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1733450 3' similar to gb:M29581 ZINC FINGER PROTEIN 8 (HUMAN); contains MER19 t1 MER19 repetitive element ;
10397	23286	36708	1.5	1.0E-65	AU153793.1	EST_HUMAN	AI153793 NT2RP3 Homo sapiens cDNA clone NT2RP3004016 3'
10791	23677	37107	0.72	1.0E-65	AA089559.1	EST_HUMAN	zf75a04.r1 Soares_pineal_gland_N3-HPG Homo sapiens cDNA clone IMAGE:382734 5'
11043	23927	37368	1.14	1.0E-65	AB037832.1	NT	Homo sapiens mRNA for KIAA1411 protein, partial cds
11094	24025	37458	2.2	1.0E-65	M26167.1	NT	Human platelet factor 4 varation 1 (PF4var1) gene, complete cds
11216	24142	37594	2.92	1.0E-65	4506680	NT	Homo sapiens ribosomal protein L7a (RPL7A) mRNA
11570	24479	37945	2.68	1.0E-65	BF098707.1	EST_HUMAN	602126239F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4283313 5'
11650	24585	38038	2.62	1.0E-65	AI821017.1	EST_HUMAN	ts75a08.x1 NCI_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2237170 3' similar to gb:L15533_ma1 PANCREATITIS ASSOCIATED PROTEIN 1 PRECURSOR (HUMAN);
12368	25164		1.93	1.0E-65	11418041	NT	Homo sapiens TNF-inducible protein CG12-1 (CG12-1), mRNA
12458	25206	31850	5.41	1.0E-65	11418322	NT	Homo sapiens cadherin EGF LAG seven-pass G-type receptor 1 (CELSR1), mRNA
74	13189	26098	2.8	9.0E-66	AL160311.1	NT	Novel human gene mapping to chromosome 22
74	13189	26099	2.8	9.0E-66	AL160311.1	NT	Novel human gene mapping to chromosome 22
1502	14533		5.81	9.0E-66	M67299.1	NT	Human transposon-like element, partial
3971	16969	29885	0.8	9.0E-66	M72393.1	NT	Human calcium-dependent phospholipid-binding protein (PLA2) mRNA, complete cds
3971	16969	29886	0.8	9.0E-66	M72393.1	NT	Human calcium-dependent phospholipid-binding protein (PLA2) mRNA, complete cds
4472	17483	30341	1.35	6.0E-66	AI924653.1	EST_HUMAN	wn57h07.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2449597 3' similar to WP:F15G9.4A CE18595 ;
4472	17483	30342	1.35	6.0E-66	AI924653.1	EST_HUMAN	wn57h07.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2449597 3' similar to WP:F15G9.4A CE18595 ;
4472	17483	30343	1.35	6.0E-66	AI924653.1	EST_HUMAN	wn57h07.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2449597 3' similar to WP:F15G9.4A CE18595 ;
9003	21932		0.53	6.0E-66	BE178563.1	EST_HUMAN	PM2-HT0604-030300-001-508 HT0604 Homo sapiens cDNA
11599	24508	37975	3.24	6.0E-66	X69181.1	NT	H. sapiens mRNA for ribosomal protein L31
1394	14425	27378	1.81	5.0E-66	BE084410.1	EST_HUMAN	RC4-BT0311-141199-011-108 BT0311 Homo sapiens cDNA
5254	18240	31091	0.98	5.0E-66	BE898644.1	EST_HUMAN	601681592F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3951761 5'
5254	18240	31092	0.98	5.0E-66	BE898644.1	EST_HUMAN	601681592F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3951761 5'
9834	22740	36121	13.19	5.0E-66	11420557	NT	Homo sapiens thyroid hormone receptor binding protein (AIB3), mRNA
817	13872	26809	1.31	4.0E-66	6678816	NT	Mus musculus fragile X mental retardation syndrome 1 homolog (Fmr1), mRNA
1785	14791	27781	0.92	4.0E-66	AW897798.1	EST_HUMAN	RC1-NN0063-100500-022-a02 NN0063 Homo sapiens cDNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2300	15308	28314	4.89	4.0E-66	X89211.1	NT	H.sapiens DNA for endogenous retroviral like element
2495	15497		5.65	4.0E-66	AJ223364.1	NT	Homo sapiens germ-line DNA upstream of Jkappa locus
4898	17895		2.61	4.0E-66	9835487	NT	Human endogenous retrovirus, complete genome
5742	18815	31911	3.4	4.0E-66	11428843	NT	Homo sapiens methylene tetrahydrofolate dehydrogenase (NAD+ dependent), methenyltetrahydrofolate
5948	18015	32135	0.77	4.0E-66	AW939119.1	EST_HUMAN	cyclohydrolase (MTHFD2), mRNA
7177	18449	31318	5.28	4.0E-66	AW965473.1	EST_HUMAN	QV1-DT0059-110200-067-g10 DT0069 Homo sapiens cDNA
7491	20431	33710	7.63	4.0E-66	U78168.1	NT	EST377548 IMAGE resequences, MAGI Homo sapiens cDNA
8077	18815	31911	0.9	4.0E-66	11428843	NT	Homo sapiens cAMP-regulated guanine nucleotide exchange factor 1 (cAMP-GEF1) mRNA, complete cds
8655	21586	34922	7.27	4.0E-66	11421638	NT	Homo sapiens methylene tetrahydrofolate dehydrogenase (NAD+ dependent), methenyltetrahydrofolate
8711	21842	34989	1.52	4.0E-66	X87147.1	NT	cyclohydrolase (MTHFD2), mRNA
11817	24738	38229	1.53	4.0E-66	AB023215.1	NT	Homo sapiens hypothetical protein FLJ20116 (FLJ20116), mRNA
1448	14476	27438	6.99	3.0E-66	4502098	NT	Human endogenous retrovirus pHE.1 (ERV8)
1448	14476	27439	6.99	3.0E-66	4502098	NT	Homo sapiens mRNA for KIAA0998 protein, partial cds
1999	15017	28007	1.08	3.0E-66	N55323.1	EST_HUMAN	Homo sapiens solute carrier family 25 (mitochondrial carrier; adenine nucleotide translocator), member 5 (SLC25A5), nuclear gene encoding mitochondrial protein, mRNA
1999	15017	28008	1.08	3.0E-66	N55323.1	EST_HUMAN	Homo sapiens solute carrier family 25 (mitochondrial carrier; adenine nucleotide translocator), member 5 (SLC25A5), nuclear gene encoding mitochondrial protein, mRNA
2757	15748	28743	2.88	3.0E-66	11141880	NT	yz27g12.r1 Soares, multiple sclerosis, 2NbrHMSP Homo sapiens cDNA clone IMAGE:284326 5' similar to
3162	16212	29102	6.3	3.0E-66	7662223	NT	SW:H2B1_TIGCA P35068 HISTONE H2B.1/H2B.2. [2] PIR-B66812;
5653	18727	31632	0.78	3.0E-66	AB020699.1	NT	yz27g12.r1 Soares, multiple sclerosis, 2NbrHMSP Homo sapiens cDNA clone IMAGE:284326 5' similar to
5769	18842	31944	0.77	3.0E-66	MT3975.1	NT	SW:H2B1_TIGCA P35068 HISTONE H2B.1/H2B.2. [2] PIR-B66812;
5981	18046	32169	2.58	3.0E-66	11417946	NT	yz27g12.r1 Soares, multiple sclerosis, 2NbrHMSP Homo sapiens cDNA clone IMAGE:284326 5' similar to
5981	18046	32170	2.58	3.0E-66	11417946	NT	SW:H2B1_TIGCA P35068 HISTONE H2B.1/H2B.2. [2] PIR-B66812;
7830	20759	34063	0.92	3.0E-66	X92211.1	NT	Homo sapiens TGF(beta)-Induced transcription factor 2 (TGIF2), mRNA
10055	22971	36360	0.62	3.0E-66	AK024453.1	NT	Homo sapiens KIAA0649 gene product (KIAA0649), mRNA
10241	23132	36335	0.73	3.0E-66	11417118	NT	Homo sapiens KIAA0892 protein, partial cds
10375	23461	36983	0.8	3.0E-66	7019480	NT	Homo sapiens protein kinase C beta-II type (PKCBI1) mRNA, complete cds
							Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA
							Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA
							H.sapiens germline immunoglobulin heavy chain, variable region, (15-1)
							Homo sapiens mRNA for FLJ00045 protein, partial cds
							Homo sapiens KIAA0433 protein (KIAA0433), mRNA
							Homo sapiens protocadherin beta 1 (PCDH-beta1), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11003	23887	37320	1.3	3.0E-66	AF155659.1	NT	Homo sapiens molybdenum cofactor biosynthesis protein E (MCBPE) mRNA, complete cds
11842	24768	38282	5.48	3.0E-66	5453949	NT	Homo sapiens protein phosphatase 2, regulatory subunit B (B56), alpha isoform (PPP2R5A) mRNA
54	13171	26089	1.25	2.0E-66	7657334	NT	Homo sapiens Misshapen/NIK-related kinase (MINK), mRNA
54	13171	26070	1.25	2.0E-66	7657334	NT	Homo sapiens Misshapen/NIK-related kinase (MINK), mRNA
445	13112	25998	1.05	2.0E-66	4505824	NT	Homo sapiens origin recognition complex, subunit 5 (yeast homolog)-like (ORC5L) mRNA, and translated products
445	13112	25999	1.05	2.0E-66	4505824	NT	Homo sapiens origin recognition complex, subunit 5 (yeast homolog)-like (ORC5L) mRNA, and translated products
1849	14871	27853	1.82	2.0E-66	AL163301.2	NT	Homo sapiens chromosome 21 segment HS21C101
2246	16256	28282	1.05	2.0E-66	XG5859.1	NT	H. sapiens pseudogene for the low affinity IL-8 receptor
3015	16087	28989	1.08	2.0E-66	XG5859.1	NT	H. sapiens pseudogene for the low affinity IL-8 receptor
3581	16618	29521	0.71	2.0E-66	8923280	NT	Homo sapiens hypothetical protein FLJ20309 (FLJ20309), mRNA
3829	16859	29741	0.75	2.0E-66	AL117233.1	NT	Novel human gene mapping to chromosome 1
4766	17771	30637	8.52	2.0E-66	AJ133267.2	NT	Homo sapiens HLA-B gene for human leucocyte antigen B
4766	17771	30638	8.52	2.0E-66	AJ133267.2	NT	Homo sapiens HLA-B gene for human leucocyte antigen B
6027	19089	32215	0.76	2.0E-66	AW568854.1	EST_HUMAN	EST380930 MAGE resequences, MAGJ Homo sapiens cDNA
6027	19089	32216	0.76	2.0E-66	AW568854.1	EST_HUMAN	EST380930 MAGE resequences, MAGJ Homo sapiens cDNA
9405	22334	35698	2.82	2.0E-66	N45480.1	EST_HUMAN	Y69c02.r1 Soares_multiple_sclerosis_2NblMSP Homo sapiens cDNA clone IMAGE:277826 5'
12667	25920		1.87	2.0E-66	11418318	NT	Homo sapiens G-2 and S-phase expressed 1 (G1TSE1), mRNA
2936	15980	28800	1.82	1.0E-66	AV717817.1	EST_HUMAN	AV717817 DCB Homo sapiens cDNA clone DCBADC07 5'
2936	15989	28891	1.62	1.0E-66	AV717817.1	EST_HUMAN	AV717817 DCB Homo sapiens cDNA clone DCBADC07 5'
4492	15989	28890	3.9	1.0E-66	AV717817.1	EST_HUMAN	AV717817 DCB Homo sapiens cDNA clone DCBADC07 5'
4492	15989	28891	3.9	1.0E-66	AV717817.1	EST_HUMAN	AV717817 DCB Homo sapiens cDNA clone DCBADC07 5'
5568	18844	31522	5.43	1.0E-66	BF673088.1	EST_HUMAN	602152996F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4294151 5'
5989	18054	32180	0.6	1.0E-66	BE765232.1	EST_HUMAN	IL2-NT0101-280700-116-E04 NT0101 Homo sapiens cDNA
5989	18054	32181	0.6	1.0E-66	BE765232.1	EST_HUMAN	IL2-NT0101-280700-116-E04 NT0101 Homo sapiens cDNA
7269	20177	33420	1.07	1.0E-66	BF328623.1	EST_HUMAN	RC5-BN0193-010900-034-G06 BN0193 Homo sapiens cDNA
9026	21955	35313	0.87	1.0E-66	AA688888.1	EST_HUMAN	aa80e04.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:827262 3'
9960	22855	36252	0.57	1.0E-66	AA018828.1	EST_HUMAN	ze57e12.r1 Soares_telina N2b4HR Homo sapiens cDNA clone IMAGE:363118 5'
10859	23745	37169	0.93	1.0E-66	AV748749.1	EST_HUMAN	AV748749 NPC Homo sapiens cDNA clone NPOBVA05 5'
10859	23745	37170	0.93	1.0E-66	AV748749.1	EST_HUMAN	AV748749 NPC Homo sapiens cDNA clone NPOBVA05 5'
11381	24297	37743	1.86	1.0E-66	AF111167.2	NT	Homo sapiens jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
12460	26207		1.85	9.0E-67	11418177	NT	Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA
401	13514	26435	3.05	7.0E-67	AW162232.1	EST_HUMAN	au75402.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782083 3' similar to gb:M37104 ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
1409	14440	27394	1.18	7.0E-67	AA383416.1	EST_HUMAN	EST196812 Testis 1 Homo sapiens cDNA 5' end similar to C. elegans hypothetical protein, cosmid ZK363
1577	14607	27566	1.45	7.0E-67	W65947.1	EST_HUMAN	zh56b05.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:416049 5'
1577	14607	27567	1.45	7.0E-67	W65947.1	EST_HUMAN	zh56b05.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:416049 5'
2046	15063	28063	1.08	7.0E-67	7657243	NT	Homo sapiens inositol 1,3,4-trisphosphate 5/6 kinase (ITPK1), mRNA
2046	15063	28064	1.08	7.0E-67	7657243	NT	Homo sapiens inositol 1,3,4-trisphosphate 5/6 kinase (ITPK1), mRNA
2857	13514	26435	4.15	7.0E-67	AW162232.1	EST_HUMAN	au75402.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782083 3' similar to gb:M37104 ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN);
6317	19367	32539	0.93	7.0E-67	10190895	NT	Homo sapiens zinc finger protein 304 (ZNF304), mRNA
6522	19566	32748	1.83	7.0E-67	11425572	NT	Homo sapiens adaptor-related protein complex 2, beta 1 subunit (AP2B1), mRNA
6522	19566	32749	1.83	7.0E-67	11425572	NT	Homo sapiens adaptor-related protein complex 2, beta 1 subunit (AP2B1), mRNA
7024	20050	33283	0.95	7.0E-67	4885084	NT	Homo sapiens ATPase, H+ transporting, lysosomal (vacuolar proton pump) non-catalytic accessory protein 1A (110/116kD) (ATP6N1A), mRNA
8079	20991	34309	1.06	7.0E-67	11419212	NT	Homo sapiens mitochondrial carrier family protein (LOC55972), mRNA
8079	20991	34310	1.08	7.0E-67	11419212	NT	Homo sapiens mitochondrial carrier family protein (LOC55972), mRNA
8643	21576	34913	0.58	7.0E-67	4826895	NT	Homo sapiens phosphodiesterase 1/nucleoside pyrophosphatase 3 (PDNPP3) mRNA
8898	21828	35180	0.72	7.0E-67	4557732	NT	Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2) mRNA
8487	22416	35778	0.98	7.0E-67	10835044	NT	Homo sapiens retinaldehyde dehydrogenase 2 (RALDH2), mRNA
12101	24942	39445	5.09	7.0E-67	U82496.1	NT	Human cytochrome oxidase subunit VIa (COX6A1P) pseudogene, complete cds
12255	25075	38589	3.03	7.0E-67	11430460	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
12255	25075	38570	3.03	7.0E-67	11430460	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
12689	25346	31827	2	7.0E-67	AB011399.1	NT	Homo sapiens gene for AF-6, complete cds
581	13849	26555	1.2	6.0E-67	X68968.1	NT	H. sapiens mRNA for transmembrane receptor protein
822	13877	26814	2.05	6.0E-67	Z17227.1	NT	Homo sapiens PMP69 gene, exons 3, 4, 5, 6 & 7
1300	14333	27279	1	6.0E-67	Y14320.1	NT	Homo sapiens PMP69 gene, exons 3, 4, 5, 6 & 7
3210	16286	29157	0.97	6.0E-67	4508434	NT	Homo sapiens retinoblastoma 1 (including osteosarcoma) (RB1) mRNA
3499	16537	29435	1.43	6.0E-67	4507332	NT	Homo sapiens Synapsin III (SYN3) mRNA, and translated products
3499	16537	29436	1.43	6.0E-67	4507332	NT	Homo sapiens Synapsin III (SYN3) mRNA, and translated products
4223	17239	30105	1.33	6.0E-67	AL163201.2	NT	Homo sapiens chromosome 21 segment HS21C001
4223	17239	30106	1.33	6.0E-67	AL163201.2	NT	Homo sapiens chromosome 21 segment HS21C001
4818	17816	30687	1.89	6.0E-67	7657020	NT	Homo sapiens DKFZp434P211 protein (DKFZP434P211), mRNA



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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4818	17819	30688	1.89	6.0E-67	7657020	NT	Homo sapiens DKFZp434P211 protein (DKFZp434P211), mRNA
3268	16315	29219	2.04	5.0E-67	AF009660.1	NT	Homo sapiens T cell receptor beta locus, TCRBV7S3A2 to TCRBV12S2 region
11422	24339		2.53	5.0E-67	BE010038.1	EST_HUMAN	PM3-BND176-100400-001-g04 BN0176 Homo sapiens cDNA
1356	14389	27342	1.34	4.0E-67	R00819.1	EST_HUMAN	Y02011.1 Soares adult brain N204H855Y Homo sapiens cDNA clone IMAGE:167253 5'
8953	21883		1.37	4.0E-67	BF357321.1	EST_HUMAN	RCC-H10934-150900-026-c03 HT0934 Homo sapiens cDNA
2860	13717	26828	1.86	3.0E-67	AA333768.1	EST_HUMAN	EST37903 Embryo, 9 week Homo sapiens cDNA 5' end
4807	17808	30674	3.31	3.0E-67	AW869159.1	EST_HUMAN	MR3-SN0065-040500-008-f01 SN0066 Homo sapiens cDNA
4835	17836		1.06	3.0E-67	AL163270.2	NT	Homo sapiens chromosome 21 segment HS21C070
8759	21689	35032	2.81	3.0E-67	BF106068.1	EST_HUMAN	Q61085 GTP-RHO BINDING PROTEIN 1;
11706	24608		17.59	3.0E-67	AA927874.1	EST_HUMAN	om18b07.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1541365 3'
200	13299	26214	1.31	2.0E-67	BE348354.1	EST_HUMAN	hw15g09.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3183136 3' similar to WP:F23H11.9
870	13923	26870	4.73	2.0E-67	AW816405.1	EST_HUMAN	QV4-ST0234-181189-037-05 ST0234 Homo sapiens cDNA
1132	14174		1.27	2.0E-67	AF167460.1	NT	Homo sapiens double stranded RNA activated protein kinase (PKR) gene, exons 2a, 2, 3, and 4
1904	14925	27603	1.18	2.0E-67	BE303037.1	EST_HUMAN	ba72g05.y1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2905976 5' similar to TR:O94892 O94892
1904	14925	27604	1.18	2.0E-67	BE303037.1	EST_HUMAN	KIAA0798 PROTEIN.;
2456	15460	28457	1.39	2.0E-67	4758795	NT	KIAA0798 PROTEIN.;
3528	16566	29470	4.49	2.0E-67	AA625755.1	EST_HUMAN	Homo sapiens developmentally regulated GTP-binding protein 1 (DRG1), mRNA
4089	17113	29991	2.87	2.0E-67	AL163300.2	NT	zu91g01.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:745392 3'
6307	19357	32528	0.82	2.0E-67	AL049784.1	NT	Homo sapiens chromosome 21 segment HS21C100
6364	19413	32578	5	2.0E-67	BF240758.1	EST_HUMAN	Novel human gene mapping to chromosome 13
6550	19592	32779	1.95	2.0E-67	AB051763.1	NT	601875351F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4091893 5'
6550	19592	32780	1.95	2.0E-67	AB051763.1	NT	Homo sapiens mRNA for NADPH-cytochrome P-450 reductase, complete cds
6833	19862	33183	0.65	2.0E-67	AL120842.1	EST_HUMAN	Homo sapiens mRNA for NADPH-cytochrome P-450 reductase, complete cds
8121	22049	35408	1.36	2.0E-67	AA334609.1	EST_HUMAN	DKFZp761A229.r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761A229 5'
8121	22049	35409	1.30	2.0E-67	AA334609.1	EST_HUMAN	EST38850 Embryo, 9 week Homo sapiens cDNA 5' end similar to cerebellin
9548	22475	35832	1.14	2.0E-67	AW602635.1	EST_HUMAN	EST38850 Embryo, 9 week Homo sapiens cDNA 5' end similar to similar to cerebellin
9548	22475	35833	1.14	2.0E-67	AW602635.1	EST_HUMAN	RC4-BT0505-170100-011-c07 BT0566 Homo sapiens cDNA
10095	22946	36332	0.69	2.0E-67	AV731333.1	EST_HUMAN	RC4-BT0505-170100-011-c07 BT0566 Homo sapiens cDNA
10231	23122	36524	1.08	2.0E-67	AW293624.1	EST_HUMAN	AV731333 HTF Homo sapiens cDNA clone H1FARD03 5'
11495	26954		3.08	2.0E-67	11436448	NT	UIH-B12-ahh-e-10-Q-UI.s1 NCL_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2727283 3'
							Homo sapiens KIAA0985 protein (KIAA0985), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11677	24581	38059	2.05	2.0E-67	BE295714.1	EST_HUMAN	601175762F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531038 5'
11889	23989	37428	2.36	2.0E-67	BF377169.1	EST_HUMAN	PM2-TN0103-040900-001-c02 TN0103 Homo sapiens cDNA
12573	25762	31579	1.64	2.0E-67	11418189	NT	Homo sapiens thyroid autoantigen Td4D (Ku antigen) (G22P1), mRNA
12850	25461	31780	1.45	2.0E-67	11417877	NT	Homo sapiens gamma-glutamyltransferase 1 (GOT1), mRNA
272	13367	28283	2.72	1.0E-67	4502168	NT	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA
731	13789	26713	1.71	1.0E-67	AA702794.1	EST_HUMAN	Z50504.s1 Soares_fetal_liver_spleen_TNFL31 Homo sapiens cDNA clone IMAGE:448016 3'
2189	15200	28205	1.3	8.0E-68	BE870732.1	EST_HUMAN	601448558F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3852254 5'
3838	18966	28848	6.65	8.0E-68	AA209456.1	EST_HUMAN	z82h10.r1 Striatagene N1T neuron (#937233) Homo sapiens cDNA clone IMAGE:648163 5' similar to SW:SAV_SULAC Q07590 SAV PROTEIN. ;
3938	18966	28849	6.65	8.0E-68	AA209456.1	EST_HUMAN	z82h10.r1 Striatagene N1T neuron (#937233) Homo sapiens cDNA clone IMAGE:648163 5' similar to SW:SAV_SULAC Q07590 SAV PROTEIN. ;
8680	21611	34952	0.85	7.0E-68	AB10505.1	EST_HUMAN	EST365613 IMAGE:3852254 5'
7875	20896	34208	0.47	6.0E-68	AW953543.1	EST_HUMAN	EST365613 IMAGE:3852254 5'
7875	20896	34209	0.47	6.0E-68	AW953543.1	EST_HUMAN	EST365613 IMAGE:3852254 5'
10930	23815	37244	2.47	6.0E-68	11422086	NT	Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 2 (BIG2), mRNA
11589	24468	37866	1.98	6.0E-68	AF133901.1	NT	Homo sapiens killer inhibitory receptor 2-2-1 (KIR221) and killer inhibitory receptor 2-2-2 (KIR222) genes, partial cds
12852	25463	37866	2.04	6.0E-68	BE612554.1	EST_HUMAN	601452067F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3855761 5'
844	13859	28837	3.89	5.0E-68	AF231919.1	NT	Homo sapiens chromosome 21 unknown mRNA
844	13859	28838	3.89	5.0E-68	AF231919.1	NT	Homo sapiens chromosome 21 unknown mRNA
2831	15820	28815	0.93	5.0E-68	AF231919.1	NT	Homo sapiens chromosome 21 unknown mRNA
3190	18239	29134	3.95	5.0E-68	AB037852.1	NT	Homo sapiens chromosome 21 unknown mRNA
4277	17291	33286	1.37	5.0E-68	4826967	NT	Homo sapiens mRNA for KIAA1431 protein, partial cds
7028	20054	33286	0.77	5.0E-68	7019612	NT	Homo sapiens retinoblastoma-binding protein 2 (RBBP2) mRNA
7028	20054	33287	0.77	5.0E-68	7019612	NT	Homo sapiens RAB3A interacting protein (rab33)-like 1 (RAB33L1), mRNA
2854	16554	28551	1.31	4.0E-68	11421388	NT	Homo sapiens RAB3A interacting protein (rab33)-like 1 (RAB33L1), mRNA
2554	15554	28552	1.31	4.0E-68	11421388	NT	Homo sapiens transcription factor NRF (NRF), mRNA
5086	18093	32394	2.68	4.0E-68	P04406	SWISSPROT	Homo sapiens transcription factor NRF (NRF), mRNA
6191	18248	32394	0.61	4.0E-68	AF157063.1	NT	GLYCERALDEHYDE 3-PHOSPHATE DEHYDROGENASE, LIVER
7080	20286	33544	6.72	4.0E-68	11055991	NT	Homo sapiens sedlin (SEDL) gene, exon 4
7080	20286	33545	6.72	4.0E-68	11055991	NT	Homo sapiens serine carboxypeptidase 1 precursor protein (HSCPT), mRNA
8135	21044	34374	0.78	4.0E-68	7661683	NT	Homo sapiens serine carboxypeptidase 1 precursor protein (HSCPT), mRNA
9592	22518	35880	6.07	4.0E-68	D83479.2	NT	Homo sapiens DKFZP586L0724 protein (DKFZP586L0724), mRNA

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Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
9592	22518	35881	6.07	4.0E-68	D63479.2	NT	Homo sapiens mRNA for KIAA0145 protein, partial cds
9721	22846	36028	2.82	4.0E-68	AB040918.1	NT	Homo sapiens mRNA for KIAA1485 protein, partial cds
11441	24367	37805	2.32	4.0E-68	4506282	NT	Homo sapiens protein tyrosine phosphatase type IVA, member 1 (PTP4A1) mRNA
11441	24357	37809	2.32	4.0E-68	4506282	NT	Homo sapiens protein tyrosine phosphatase type IVA, member 1 (PTP4A1) mRNA
11603	24512	37890	1.4	4.0E-68	AB040948.1	NT	Homo sapiens mRNA for KIAA1515 protein, partial cds
12750	25388	31804	4.73	4.0E-68	11417988	NT	Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA
3729	16761	29848	2.71	3.0E-68	AF236082.1	NT	Mus musculus G-protein coupled receptor GPR73 (Gpr73) mRNA, complete cds
9989	21347		4.86	3.0E-68	AI342323.1	EST_HUMAN	q38h02.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1950291 3' similar to contains THR12 THR repetitive element ;
10980	23864	37291	1.12	3.0E-68	F28784.1	EST_HUMAN	HSPD18178 HM3 Homo sapiens cDNA clone s3000023D09
2904	18408		6.96	2.0E-68	D00522.1	NT	Cr. cellus longicaudatus mRNA for EF-1 alpha, complete cds
4109	17133	30008	0.73	2.0E-68	BE575768.1	EST_HUMAN	7f1502.x1 NCL_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:3284747 3' similar to TR:O80828 O80828
4793	17797	30665	2.81	2.0E-68	AB008681.1	NT	HYPOTHETICAL 88.8 KD PROTEIN ;
7201	20201		9.51	2.0E-68	R45088.1	EST_HUMAN	Homo sapiens gene for activin receptor type IIE, complete cds
7417	20116	33352	4.34	2.0E-68	BF035316.1	EST_HUMAN	y938g04.e1 Soares infant brain T1NB1 Homo sapiens cDNA clone IMAGE:34898 3'
7584	20520		0.51	2.0E-68	11525737	NT	607458514F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862034 5'
7762	20692	33991	0.71	2.0E-68	BF336745.1	EST_HUMAN	Homo sapiens UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylglucosaminyltransferase 8 (GalNAc-T8) (GALNT8), mRNA
8504	22431	35794	0.63	2.0E-68	Q05859	SWISSPROT	IL3-CT0534-180900-273-A01 CT0534 Homo sapiens cDNA
11691	24553	38071	1.53	2.0E-68	BF330594.1	EST_HUMAN	FORMIN 4 (LIMB DEFORMITY PROTEIN)
12361	25938		2.83	2.0E-68	BE897376.1	EST_HUMAN	QV0-BT0074-130909-014-g04 BT0074 Homo sapiens cDNA
13090	25607		1.53	2.0E-68	AW018803.1	EST_HUMAN	607437367F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3922192 5'
82	13165	28108	0.78	1.0E-68	4505222	NT	UI-H-B10-aam-b-05-0-UJ.s1 NCL_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2709824 3'
316	13408	26326	8.85	1.0E-68	AW816405.1	EST_HUMAN	Homo sapiens meningioma (disrupted in balanced translocation) 1 (MNT1), mRNA
2268	16278	28284	1.1	1.0E-68	AB011149.1	NT	QV4-ST0234-181199-037-05 ST0234 Homo sapiens cDNA
2268	15278	28285	1.1	1.0E-68	AB011149.1	NT	Homo sapiens mRNA for KIAA0577 protein, complete cds
2806	15795	28795	1.15	1.0E-68	AW451832.1	EST_HUMAN	Homo sapiens mRNA for KIAA0577 protein, complete cds
4096	17121	29998	1.03	1.0E-68	BE296032.1	EST_HUMAN	UI-H-B13-alk-f-01-0-UJ.s1 NCL_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2737272 3'
5159	18152	30908	0.81	1.0E-68	AA897343.1	EST_HUMAN	607177002F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532344 5'
5505	18584	31433	1.55	1.0E-68	7662349	NT	ai47g12.s1 Soares_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:1400516 3'
8129	21039	34368	0.65	1.0E-68	11436716	NT	Homo sapiens cell recognition molecule Caspr2 (KIAA0858), mRNA
10679	23585	36995	0.53	1.0E-68	11419429	NT	Homo sapiens sentrin/SUMO-specific protease (SENP1), mRNA
							Homo sapiens similar to ecdystrolid pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC63214), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Description
11287	24208	37658	1.54	1.0E-68	11418869	NT	Homo sapiens phosphodiesterase 7B (PDE7B), mRNA
11287	24208	37659	1.54	1.0E-68	11418869	NT	Homo sapiens phosphodiesterase 7B (PDE7B), mRNA
11341	24260	37700	1.54	1.0E-68	L76416.1	NT	Homo sapiens MIF2 suppressor (HSMIT3), mRNA, complete cds
11638	24544	36018	2.03	1.0E-68	11433277	NT	Homo sapiens myosin IC (MYOIC), mRNA
11746	24647	38127	1.72	1.0E-68	U50319.1	NT	Human protein kinase C substrate 80K-H (PRKCSH) gene, exon 4-5
11746	24647	38128	1.72	1.0E-68	U50319.1	NT	Human protein kinase C substrate 80K-H (PRKCSH) gene, exon 4-5
12091	24932	38438	1.45	1.0E-68	11418431	NT	Homo sapiens CGI-76 protein (LOC51632), mRNA
12091	24932	38439	1.45	1.0E-68	11418431	NT	Homo sapiens CGI-76 protein (LOC51632), mRNA
12838	13165	28108	1.89	1.0E-68	4505222	NT	Homo sapiens meningioma (disrupted in balanced translocation) 1 (MNT), mRNA
13033	25878	31476	1.75	1.0E-68	11430460	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
13072	25596		1.74	1.0E-68	11418213	NT	Homo sapiens ADP-ribosylation factor GTPase activating protein 1 (ARFGAP1), mRNA
21	13137	26023	11.09	9.0E-69	5031976	NT	Homo sapiens pre-B-cell colony-enhancing factor (PBEF), mRNA
21	13137	26024	11.09	9.0E-69	5031976	NT	Homo sapiens pre-B-cell colony-enhancing factor (PBEF), mRNA
1054	14088	27036	1.58	9.0E-69	5031980	NT	Homo sapiens 26S proteasome-associated pac1 homolog (POH1), mRNA
1054	14088	27037	1.58	9.0E-69	5031980	NT	Homo sapiens 26S proteasome-associated pac1 homolog (POH1), mRNA
11327	24246		4.82	9.0E-69	AU117241.1	EST_HUMAN	AU117241 HEMBA1 Homo sapiens cDNA clone HEMBA1000988 5'
3445	18486		1.87	8.0E-69	AJ237744.1	NT	Homo sapiens RIBIR gene (partial), exon 12
6610	18651	32835	4.03	7.0E-69	9966912	NT	Homo sapiens actin-related protein 3-beta (ARP3BETA), mRNA
8444	21376	34716	4.78	6.0E-69	A192764.1	EST_HUMAN	q62h01.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1743601 3' similar to gbL11566 60S RIBOSOMAL PROTEIN L18 (-HUMAN);
8444	21376	34717	4.78	6.0E-69	A192764.1	EST_HUMAN	q62h01.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1743601 3' similar to gbL11566 60S RIBOSOMAL PROTEIN L18 (-HUMAN);
9525	22452	36816	1.17	5.0E-69	AJ826039.1	EST_HUMAN	cd60a03.s1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1372300 3'
543	13612		1.32	4.0E-69	AJ873630.1	EST_HUMAN	wm26h11.x1 NCL_CGAP_U14 Homo sapiens cDNA clone IMAGE:2437125 3'
5969	25636	32156	1.55	4.0E-69	BE561063.1	EST_HUMAN	601344705F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3677641 5'
6057	18119	32248	5.86	4.0E-69	A1764973.1	EST_HUMAN	wh57b06.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2384819 3' similar to TR:O55137
6918	19948	33168	2.5	4.0E-69	4557732	NT	O55137 ACYL-CoA THIOESTERASE. ;
6918	19948	33169	2.5	4.0E-69	4557732	NT	Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2), mRNA
9471	23999	35762	0.52	4.0E-69	AU119634.1	EST_HUMAN	Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2), mRNA
407	13520	28442	3	3.0E-69	BE258012.1	EST_HUMAN	AU119634 HEMBA1 Homo sapiens cDNA clone HEMBA1006283 5'
635	13698	26001	1.39	3.0E-69	AF221712.1	NT	601110371F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3351352 5'
2399	15404		1.11	3.0E-69	5728910	NT	Homo sapiens Smed- and Olf-interacting zinc finger protein mRNA, partial cds
4769	17190	30062	1.05	3.0E-69	A1765888.1	EST_HUMAN	Homo sapiens lymphatic vessel endothelial hyaluronan receptor 1 (LYVE-1), mRNA

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Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5423	18420	38564	1.92	3.0E-69	11418185	NT	Homo sapiens aconitase 2, mitochondrial (AC02), mRNA
5825	18898	32009	0.51	3.0E-69	U14178.1	NT	Human type II IL-1 receptor gene, exon 1B
7113	20317		0.85	3.0E-69	AJ271557.1	NT	Homo sapiens dNT-2 gene for mitochondrial 5'(3')-deoxyribonucleoside (dNT-2 gene), exons 1-5
7179	18451	31320	0.50	3.0E-69	11426786	NT	Homo sapiens sperm surface protein (HSS), mRNA
7764	20694	33993	0.8	3.0E-69	AF095703.1	NT	Homo sapiens short chain L-3-hydroxyacyl-CoA dehydrogenase precursor (HADHSC) gene, nuclear gene encoding mitochondrial protein, complete cds
7821	20750	34055	1.39	3.0E-69	U52351.1	NT	Homo sapiens arm-repeat protein NPRAP/neurjungin (CTNND2) mRNA, partial cds
7983	20904	34220	8.3	3.0E-69	AF288075.1	NT	Homo sapiens TRAF6-binding protein T6BP mRNA, complete cds
8944	21874	35235	0.8	3.0E-69	AW138648.1	EST_HUMAN	UIH-B11-ecw-g-01-0.U1.1 NCL CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2715840 3'
9327	22255		0.82	3.0E-69	AA376399.1	EST_HUMAN	EST88907 HSC172 cells II Homo sapiens cDNA 5' end similar to similar to ribosomal protein S18
9528	22455	35817	0.54	3.0E-69	8923248	NT	Homo sapiens hypothetical protein FLJ20275 (FLJ20275), mRNA
9947	22852	36240	1.49	3.0E-69	X13223.1	NT	H. sapiens mRNA for N-acetylglucosaminide-(beta 1-4)-galactosyltransferase
10082	22978	36369	3.86	3.0E-69	X06233.1	NT	Human mRNA for calcium-binding protein in macrophages (MRP-14) macrophage migration inhibitory factor (MIF)-related protein
10344	23233	36651	0.63	3.0E-69	5730036	NT	Homo sapiens SEC10 (S. cerevisiae)-like 1 (SEC10L1), mRNA
11085	24018	37459	2.12	3.0E-69	11432120	NT	Homo sapiens ribosomal protein S15a (RPS15A), mRNA
11279	24201		14.26	3.0E-69	AA376399.1	EST_HUMAN	EST88907 HSC172 cells II Homo sapiens cDNA 5' end similar to similar to ribosomal protein S18
12379	25159		6.23	3.0E-69	11419157	NT	Homo sapiens HGC6.2 protein (HGC6.2), mRNA
133	13498	26421	1.03	2.0E-69	AF160252.1	NT	Homo sapiens KIAA0553 protein gene, complete cds; and alpha1b protein gene, partial cds
133	13498	26422	1.03	2.0E-69	AF160252.1	NT	Homo sapiens KIAA0553 protein gene, complete cds; and alpha1b protein gene, partial cds
427	13498	26421	3.54	2.0E-69	AF160252.1	NT	Homo sapiens KIAA0553 protein gene, complete cds; and alpha1b protein gene, partial cds
427	13498	26422	3.54	2.0E-69	AF160252.1	NT	Homo sapiens KIAA0553 protein gene, complete cds; and alpha1b protein gene, partial cds
1905	14926	27805	1.23	2.0E-69	BE257857.1	EST_HUMAN	G01109444F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350074 5'
2889	15943		3.17	2.0E-69	AA431157.1	EST_HUMAN	zw71g02.r1 Seares_testis_NHT Homo sapiens cDNA clone IMAGE:781682 6'
9117	22045	35402	0.94	2.0E-69	AA114270.1	EST_HUMAN	zm28g01.r1 Stralagene pancreas (#937208) Homo sapiens cDNA clone IMAGE:527088 5'
1730	14757	27727	1.92	1.0E-69	AF033768.1	NT	Rattus norvegicus brain specific cortactin-binding protein GBP90 mRNA, partial cds
5151	18144		0.82	1.0E-69	BE408094.1	EST_HUMAN	G013071284F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635781 5'
6285	19336	32502	0.84	1.0E-69	BE902501.1	EST_HUMAN	G01675788F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3958532 5'
6285	19336	32503	0.84	1.0E-69	BE902501.1	EST_HUMAN	G01675788F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3958532 5'
6890	19920	33135	3.67	1.0E-69	AW393969.1	EST_HUMAN	QY0-1T0010-031189-045-c07 T10010 Homo sapiens cDNA
7131	20335	33599	1.37	1.0E-69	7662263	NT	Homo sapiens KIAA0716 gene product (KIAA0716), mRNA
7131	20335	33600	1.37	1.0E-69	7662263	NT	Homo sapiens KIAA0716 gene product (KIAA0716), mRNA
7150	20258	33511	3.87	1.0E-69	AB032973.1	NT	Homo sapiens mRNA for KIAA1147 protein, partial cds

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
7150	20258	33512	3.87	1.0E-69	AB032873.1	NT	Homo sapiens mRNA for KIAA1147 protein, partial cds
7208	20208	33454	0.44	1.0E-69	BE531007.1	EST_HUMAN	601278532F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3610614 5'
7208	20208	33455	0.44	1.0E-69	BE531007.1	EST_HUMAN	601278532F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3610614 5'
10970	23556	36987	4.25	1.0E-69	BE245070.1	EST_HUMAN	TCBAP1E2678 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP2678
10970	23556	36988	4.25	1.0E-69	BE245070.1	EST_HUMAN	TCBAP1E2678 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP2678
10761	23647	37080	1.26	1.0E-69	AB014607.1	NT	Homo sapiens mRNA for KIAA0707 protein, partial cds
10898	23783	37209	0.62	1.0E-69	BF528428.1	EST_HUMAN	602043782F1 NCL_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4181325 5'
11307	24228		3.18	1.0E-69	4504918	NT	Homo sapiens keratin 8 (KRT8) mRNA
12320	25121	38161	1.52	1.0E-69	BF126887.1	EST_HUMAN	60176202F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:4025785 5'
12999	25355		5.43	1.0E-69	AB099994.1	EST_HUMAN	wf84e08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:4025785 5'
2354	15921	28364	1.51	8.0E-70	AA230303.1	EST_HUMAN	repetitive element; contains element MIR repetitive element:
4480	17491	30351	1.88	8.0E-70	L77566.1	NT	Homo sapiens DGS-1 mRNA, 3' end
1835	14858	27839	2.36	7.0E-70	AI497807.1	EST_HUMAN	tr89701.x1 NCL_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2165305 3'
1835	14858	27840	2.36	7.0E-70	AI497807.1	EST_HUMAN	tr89701.x1 NCL_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2165305 3'
1845	14968	27945	1.13	7.0E-70	AA282986.1	EST_HUMAN	z115h04.r1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:713239 5'
2077	15091		3.09	7.0E-70	5031688	NT	Homo sapiens tumor suppressor deleted in oral cancer-related 1 (DOC-1R) mRNA
4324	17338	30203	4.6	7.0E-70	4757723	NT	Homo sapiens adenylylase cyclase 3 (ADCY3) mRNA
5971	18745	31655	5.41	7.0E-70	AB032360.1	NT	Homo sapiens MIST mRNA, partial cds
5971	18745	31656	5.41	7.0E-70	AB032369.1	NT	Homo sapiens MIST mRNA, partial cds
7254	20163	33402	1.79	7.0E-70	AJ000032.1	NT	Homo sapiens gene encoding splicing factor SF1, exons 2-8
8237	21142	34475	0.5	7.0E-70	11417306	NT	Homo sapiens titin immunoglobulin domain protein (myotilin) (TTID), mRNA
8321	21228	34560	0.41	7.0E-70	11419404	NT	Homo sapiens cerebral cavernous malformations 1 (CCM1), mRNA
9000	21929	35284	2.39	7.0E-70	AB037715.1	NT	Homo sapiens mRNA for KIAA1294 protein, partial cds
9000	21929	35285	2.39	7.0E-70	AB037715.1	NT	Homo sapiens mRNA for KIAA1294 protein, partial cds
9281	22209	35567	5.31	7.0E-70	MT4099.1	NT	Human displacement protein (CCAAT) mRNA
9281	22209	35568	5.31	7.0E-70	MT4099.1	NT	Human displacement protein (CCAAT) mRNA
9700	22625	36003	4.08	7.0E-70	X59841.1	NT	Human PBX3 mRNA
9700	22625	36004	4.08	7.0E-70	X59841.1	NT	Human PBX3 mRNA
9959	21327	34660	5.5	7.0E-70	AF153715.1	NT	Homo sapiens phospholipid scramblase 1 gene, exon 1 and 5' flanking region
9993	21350	34686	1.93	7.0E-70	11525964	NT	Homo sapiens karyopherin beta 2b, transportin (TRN2), mRNA
9993	21350	34687	1.93	7.0E-70	11525964	NT	Homo sapiens karyopherin beta 2b, transportin (TRN2), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
10181	23072	36472	0.57	7.0E-70	4557824	NT	Homo sapiens glutamate-cysteine ligase (gamma-glutamylcysteine synthetase), catalytic (72.8kD) (GLCLC) mRNA
10787	23673	37101	0.92	7.0E-70	AB036429.1	NT	Homo sapiens NDST4 mRNA for N-deacetylase/N-sulfotransferase 4, complete cds
10787	23673	37102	0.92	7.0E-70	AB036429.1	NT	Homo sapiens NDST4 mRNA for N-deacetylase/N-sulfotransferase 4, complete cds
11513	24423	37880	1.64	7.0E-70	11429685	NT	Homo sapiens spastic paraplegia 4 (autosomal dominant; spasin) (SPG4), mRNA
11513	24423	37881	1.64	7.0E-70	11429685	NT	Homo sapiens spastic paraplegia 4 (autosomal dominant; spasin) (SPG4), mRNA
12027	24869	38371	1.6	7.0E-70	11526319	NT	Homo sapiens HIR (histone cell cycle regulation defective, S. cerevisiae) homolog A (HIRA), mRNA
12027	24869	38372	1.6	7.0E-70	11526319	NT	Homo sapiens HIR (histone cell cycle regulation defective, S. cerevisiae) homolog A (HIRA), mRNA
13080	25602	31731	2.17	7.0E-70	Z00040.1	NT	Human kappa-immunoglobulin germ line pseudogene variable region (subgroup V kappa I)
886	13940	26896	2.07	6.0E-70	4502166	NT	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA
2151	15163	28165	1.59	6.0E-70	M30938.1	NT	Human Ku (p70/p80) subunit mRNA, complete cds
2534	15535	28535	1.01	6.0E-70	8923899	NT	Homo sapiens CMP-N-acetylneuraminic acid synthase (LOC:55907), mRNA
4628	17635	30499	0.87	6.0E-70	AF154121.1	NT	Homo sapiens sodium-dependent high-affinity dicarboxylate transporter (NADC3) mRNA, complete cds
2585	15927	28576	2.07	5.0E-70	7682307	NT	Homo sapiens KIAA0792 gene product (KIAA0792), mRNA
2585	15927	28577	2.07	5.0E-70	7682307	NT	Homo sapiens KIAA0792 gene product (KIAA0792), mRNA
12330	25128	33317	6.82	5.0E-70	BE168034.1	EST_HUMAN	MR3-HT0487-150200-115-a06 HT0487 Homo sapiens cDNA
7059	20084	33317	1.44	4.0E-70	T06037.1	EST_HUMAN	EST03926 Fetal brain, Stratagene (cat#936205) Homo sapiens cDNA clone HFB0N25
7102	20308	33568	3.67	4.0E-70	AW793228.1	EST_HUMAN	CM4-UM0003-010300-105-g08 UM0003 Homo sapiens cDNA
7102	20308	33569	3.67	4.0E-70	AW793226.1	EST_HUMAN	CM4-UM0003-010300-105-g08 UM0003 Homo sapiens cDNA
1612	14842	27802	1.64	3.0E-70	BE071796.1	EST_HUMAN	RCO-BT0522-071299-011-a12 BT0522 Homo sapiens cDNA
1612	14842	27803	1.64	3.0E-70	BE071796.1	EST_HUMAN	RCO-BT0522-071299-011-a12 BT0522 Homo sapiens cDNA
5312	18236	31149	1.3	3.0E-70	AJ271736.1	NT	Homo sapiens Xq pseudautosomal region; segment 2/2
5814	18936	31997	0.57	3.0E-70	11430988	NT	Homo sapiens plakophilin 4 (PKP4), mRNA
5814	18936	31997	0.57	3.0E-70	11430988	NT	Homo sapiens plakophilin 4 (PKP4), mRNA
6170	19227	32372	0.89	3.0E-70	AJ831975.1	EST_HUMAN	wh80d03.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2388005 3'
6633	19673	32859	3.05	3.0E-70	BF685233.1	EST_HUMAN	602141561F1 NIH_MGC_49 Homo sapiens cDNA clone IMAGE:4302800 5'
6633	19673	32860	3.05	3.0E-70	BF685233.1	EST_HUMAN	602141561F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4302800 5'
10609	23495	36925	0.67	3.0E-70	BE502973.1	EST_HUMAN	h281h02.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3214419 3'
40	13156	26047	1.17	2.0E-70	AF012872.1	NT	Homo sapiens phosphatidylinositol 4-kinase 230 (p4K230) mRNA, complete cds

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Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
713	13772	26689	11.81	2.0E-70	N42161.1	EST_HUMAN	y07a10.r1 Soares melanocyte 2NBHM Homo sapiens cDNA clone IMAGE:270522 5' similar to SW:D3HL_RAT P29266 3-HYDROXYISOBUTYRATE DEHYDROGENASE PRECURSOR ;
713	13772	26690	11.81	2.0E-70	N42161.1	EST_HUMAN	y07a10.r1 Soares melanocyte 2NBHM Homo sapiens cDNA clone IMAGE:270522 5' similar to SW:D3HL_RAT P29266 3-HYDROXYISOBUTYRATE DEHYDROGENASE PRECURSOR ;
728	13768	26712	3.34	2.0E-70	AI246899.1	EST_HUMAN	qx31n01.x1 NCI CGAP_Pam1 Homo sapiens cDNA clone IMAGE:2004913 3'
1048	14082	27031	1.7	2.0E-70	8923669	NT	Homo sapiens hypothetical protein FLJ20768 (FLJ20758), mRNA
1212	14260	27191	2.33	2.0E-70	7661983	NT	Homo sapiens KIAA0193 gene product (KIAA0193), mRNA
1212	14260	27192	2.33	2.0E-70	7661983	NT	Homo sapiens KIAA0193 gene product (KIAA0193), mRNA
1770	14766	27766	4.33	2.0E-70	AL163202.2	NT	Homo sapiens chromosome 21 segment HS21C002
2341	15349		7.86	2.0E-70	AA054010.1	EST_HUMAN	z48g04.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:380214 5' similar to SW:GAG_HTL1A
3891	16920	29797	0.9	2.0E-70	AL193207.2	NT	P03345 GAG POLYPROTEIN ;
4133	17155	30032	6.28	2.0E-70	M69181.1	NT	Novel human gene mapping to chromosome X
5410	18391		0.65	2.0E-70	BE394321.1	EST_HUMAN	Human nonmuscle myosin heavy chain-B (MYH10) mRNA, partial cds
5705	18778	31707	8.09	2.0E-70	X72862.1	NT	601311455F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3633204 5'
5705	18778	31708	8.09	2.0E-70	X72862.1	NT	H. sapiens gene for schwannomin (CS8)
6445	19491	32688	1.57	2.0E-70	AF310105.1	NT	H. sapiens gene for schwannomin (CS8)
6925	19954	33174	1.91	2.0E-70	D12925.1	NT	Homo sapiens NALP1 mRNA, complete cds
6963	19991	33217	9.48	2.0E-70	AF123074.1	NT	Human mRNA for NF1 protein isoform (neurofibromin isoform), complete cds
6963	19991	33218	9.46	2.0E-70	AF123074.1	NT	Homo sapiens cytoplasmic dynein intermediate chain 1 mRNA, complete cds
7338	18506	31282	1.76	2.0E-70	11422842	NT	Homo sapiens sialyltransferase 6 (N-acetylglucosaminide alpha 2,3-sialyltransferase) (SIAT6), mRNA
7802	20731	34033	0.91	2.0E-70	AF288207.1	NT	Homo sapiens cysteinyl-4RNA synthetase mRNA, complete cds, alternatively spliced
8497	21428	34768	4.41	2.0E-70	M21741.1	NT	Human guanine nucleotide-binding protein alpha-subunit gene (G-a-alpha), exons 4 and 5
8800	21730	35079	0.61	2.0E-70	11423599	NT	Homo sapiens amylo-1,6-glucosidase, 4-alpha-glucanotransferase (glycogen debranching enzyme, glycogen storage disease type III) (AGL), mRNA
9218	22146		0.78	2.0E-70	H47959.1	EST_HUMAN	yp79g02.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:193682 5'
9711	22636	36017	1.29	2.0E-70	11526355	NT	Homo sapiens dynactin p62 subunit (LOC51164), mRNA
10837	23523	36958	1.56	2.0E-70	AF123303.1	NT	Homo sapiens calcium-binding transporter mRNA, partial cds
11508	24418	37872	2.96	2.0E-70	8923420	NT	Homo sapiens hypothetical protein FLJ20450 (FLJ20460), mRNA
11508	24418	37873	2.96	2.0E-70	8923420	NT	Homo sapiens hypothetical protein FLJ20450 (FLJ20460), mRNA
12066	24907	38409	10.99	2.0E-70	4503520	NT	Homo sapiens eukaryotic translation initiation factor 3, subunit 8 (48kD) (EIF3S8) mRNA
12687	25344	31824	2.1	2.0E-70	11430460	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
12687	25344	31825	2.1	2.0E-70	11430460	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA



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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3452	16493		2.92	1.0E-70	4507478	NT	Homo sapiens transglutaminase 3 (E polypeptide, protein-glutamine-gamma-glutamyltransferase) (TGM3) mRNA
9820	22726		0.94	1.0E-70	W85795.1	EST_HUMAN	zh55g05.r1 Soares_fetal_liver_spleen_INFLS_51 Homo sapiens cDNA clone IMAGE:416024 5'
10316	23204		0.61	1.0E-70	AA442262.1	EST_HUMAN	zh54c03.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757444 5'
11373	24289	37733	2.86	1.0E-70	AV738538.1	EST_HUMAN	AV738538 CB Homo sapiens cDNA clone CBLBGB10 5'
6169	19226	32370	7.7	9.0E-71	AI143870.1	EST_HUMAN	q604f01.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1738009 3' similar to TR:O14045
6169	19226	32371	7.7	9.0E-71	AI143870.1	EST_HUMAN	q604f01.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1738009 3' similar to TR:O14045
7381	20375	33644	2.07	9.0E-71	AI654803.1	EST_HUMAN	w652c05.x1 NCL_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2309288 3' similar to TR:P97213 P97213
11855	20375	33644	3.86	9.0E-71	AI654903.1	EST_HUMAN	w652c05.x1 NCL_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2309288 3' similar to TR:P97213 P97213
9621	22547		2.73	8.0E-71	AA171451.1	EST_HUMAN	z2p1d11.r1 Striatagene neuroepithelium (8937231) Homo sapiens cDNA clone IMAGE:610101 5' similar to TR:G1143061 G1143061 STRAIN XA34 POL
11069	23953	37388	0.57	8.0E-71	AW273920.1	EST_HUMAN	x124d01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2814049 3' similar to TR:O54730
7768	20698	33988	8.09	7.0E-71	AA442230.1	EST_HUMAN	OB4730 TRANSPLANTABILITY ASSOCIATED PROTEIN 1
8236	22184	35517	1.26	7.0E-71	AA706457.1	EST_HUMAN	z60h08.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:758075 5'
11774	24673	38182	1.93	7.0E-71	AL163210.2	NT	z91a06.s1 Soares_fetal_liver_spleen_INFLS_51 Homo sapiens cDNA clone IMAGE:462226 3'
2225	15235	28242	5.03	5.0E-71	AF066322.1	NT	Homo sapiens chromosome 21 segment HS21(2010
4215	17292	30101	1.16	5.0E-71	AW816405.1	EST_HUMAN	Homo sapiens SP100-HMG nuclear autoantigen (SP100) mRNA, complete cds
6096	19187	32290	1.62	5.0E-71	4502740	NT	QV4-ST0234-181199-037-005 ST0234 Homo sapiens cDNA
6956	19985	33209	1.56	5.0E-71	11641408	NT	Homo sapiens cyclin-dependent kinase 6 (CDK6) mRNA
7249	20158	33397	0.95	5.0E-71	7682209	NT	Homo sapiens keratin, hair, acidic, 7 (KRT47), mRNA
7314	18492	31305	0.42	5.0E-71	AB033106.1	NT	Homo sapiens KIAA0623 gene product (KIAA0623), mRNA
7314	18492	31306	0.42	5.0E-71	AB033106.1	NT	Homo sapiens mRNA for KIAA1280 protein, partial cds
7606	20445	33720	0.82	5.0E-71	11431580	NT	Homo sapiens protein kinase C, beta 1 (PRKCB1), mRNA
7933	20855	34163	1.7	5.0E-71	M38106.1	NT	Homo sapiens neurofibromin protein type 1 mRNA, 3' end of cds
8166	21073	34403	0.89	5.0E-71	11526445	NT	Homo sapiens MAGUK protein p57, Protein Associated with Lins 2 (LOC51678), mRNA
8198	21104	34436	22.62	5.0E-71	AF072810.1	NT	Homo sapiens transcription factor WSTF mRNA, complete cds
9087	22016	35371	0.85	5.0E-71	5453777	NT	Homo sapiens nuclear factor related to kappa B binding protein (NFKB) mRNA
9087	22016	35372	0.85	5.0E-71	5453777	NT	Homo sapiens nuclear factor related to kappa B binding protein (NFKB) mRNA
10422	23311		2.54	5.0E-71	X13467.1	NT	Human PreA4 gene for Alzheimer's disease A4 amyloid protein precursor (exon 2)

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11418	24334	37783	5.21	5.0E-71	11439514	NT	Homo sapiens pro-platelet basic protein (includes platelet basic protein, beta-thromboglobulin, connective tissue-activating peptide III, neutrophil-activating peptide-2) (PPBP), mRNA
11637	24543	38017	2.73	5.0E-71	11439069	NT	Homo sapiens similar to hypothetical protein FLJ20163 (H. sapiens) (LOC633325), mRNA
12284	25098	38574	1.49	5.0E-71	11417862	NT	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA
107	13220	26133	1.14	4.0E-71	4507592	NT	Homo sapiens tumor necrosis factor (ligand) superfamily, member 10 (TNFSF10) mRNA
370	13457	26371	90.47	4.0E-71	AF167626.1	NT	Equus caballus glyceraldehyde-3-phosphate dehydrogenase mRNA, partial cds
370	13457	26372	90.47	4.0E-71	AF157626.1	NT	Equus caballus glyceraldehyde-3-phosphate dehydrogenase mRNA, partial cds
2928	15981	28878	2.47	4.0E-71	4505880	NT	Homo sapiens plasminogen (PLG) mRNA
4535	17544	30405	2.84	4.0E-71	AF056322.1	NT	Homo sapiens SP100-HMG nuclear autoantigen (SP100) mRNA, complete cds
6108	18105	30862	7.02	4.0E-71	7657602	NT	Homo sapiens putative heme-binding protein (SOUL), mRNA
8612	21643		1.3	3.0E-71	AU135734.1	EST_HUMAN	AU135734 PLACE1 Homo sapiens cDNA clone PLACE1002775 5'
11134	24083	37509	4	3.0E-71	AA557883.1	EST_HUMAN	nl45h10 e1 NCI_CGAP_P14 Homo sapiens cDNA clone IMAGE:1043683 similar to contains PTR5.13 PTR5 repetitive element ;
1258	14293	27239	3.15	2.0E-71	AL163206.2	NT	Homo sapiens chromosome 21 segment HS21C006
5503	18592	31431	6.55	2.0E-71	D87462.1	NT	Human mRNA for KIAA0272 gene, partial cds
5503	18592	31432	6.55	2.0E-71	D87462.1	NT	Human mRNA for KIAA0272 gene, partial cds
7305	18474	31295	0.64	2.0E-71	AL042439.1	EST_HUMAN	DKFZp434D1721.1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434D1721 5'
8286	21190	34527	0.43	2.0E-71	AW601779.1	EST_HUMAN	QV4-BT0407-180100-082-g11 BT0407 Homo sapiens cDNA
9557	22484	35844	0.62	2.0E-71	BF195585.1	EST_HUMAN	7n85c11.x1 NCI_CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3571221 3' similar to TR:Q9Z165
11058	23942	37378	3.02	2.0E-71	AF095703.1	NT	Q9Z165 PUTATIVE FOUR REPEAT ION CHANNEL ;
11058	23942	37378	3.02	2.0E-71	AF095703.1	NT	Homo sapiens short chain L-3-hydroxyacyl-CoA dehydrogenase precursor (HADHSC) gene, nuclear gene encoding mitochondrial protein, complete cds
11058	23942	37378	3.02	2.0E-71	AF095703.1	NT	Homo sapiens short chain L-3-hydroxyacyl-CoA dehydrogenase precursor (HADHSC) gene, nuclear gene encoding mitochondrial protein, complete cds
11136	24065	37510	1.64	2.0E-71	BE018477.1	EST_HUMAN	bb81a06.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3048754 5' similar to SW:R23B_HUMAN
12014	24856	38356	2.43	2.0E-71	R55626.1	EST_HUMAN	P64727 UV EXCISION REPAIR PROTEIN RAD23 HOMOLOG B ;
12390	25166		3.48	2.0E-71	T95489.1	EST_HUMAN	y177c11.1 Scores breast 2NblHst Homo sapiens cDNA clone IMAGE:164772 5'
681	13723	28634	1.42	1.0E-71	A1077927.1	EST_HUMAN	y643609.t1 Scores fetal liver spleen 1NfLS Homo sapiens cDNA clone IMAGE:120520 5'
969	14020	28964	1.43	1.0E-71	7706281	NT	cyf15e03.s1 Scores, senescent fibroblasts, Nbl-HSF Homo sapiens cDNA clone IMAGE:1665916 3' similar to contains LOR1 b2 LOR1 repetitive element ;
1127	14169	27106	4.65	1.0E-71	AF205890.1	NT	Homo sapiens neuronal cell death-related protein (LOC51616), mRNA
1368	14400	27354	8.53	1.0E-71	AF012872.1	NT	Homo sapiens disabled-2 gene, exons 2 through 16 and complete cds
2095	15108	28112	1.73	1.0E-71	AB017007.1	NT	Homo sapiens phosphatidylinositol 4-kinase 230 (p4K230) mRNA, complete cds
							Homo sapiens PMS2L16 mRNA, partial cds

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2095	15109	28113	1.73	1.0E-71	AB017007.1	NT	Homo sapiens PMS2L16 mRNA, partial cds
2743	15735	28730	3.8	1.0E-71	7657153	NT	Homo sapiens hairy/enhancer-of-split related with YRPW motif-like (HEYL), mRNA
3658	16693	28588	8.66	1.0E-71	AF246219.1	NT	Homo sapiens SNARE protein kinase SNAK mRNA, complete cds
3658	16693	29589	8.66	1.0E-71	AF246219.1	NT	Homo sapiens SNARE protein kinase SNAK mRNA, complete cds
3717	16749	29836	0.9	1.0E-71	BE122850.1	EST_HUMAN	02_15 Human Epidermal Keratinocyte Subtraction Library- Upregulated Transcripts Homo sapiens cDNA clone 02_15 5' similar to Homo sapiens chromosome 19
3717	16749	29837	0.9	1.0E-71	BE122850.1	EST_HUMAN	02_15 Human Epidermal Keratinocyte Subtraction Library- Upregulated Transcripts Homo sapiens cDNA clone 02_15 5' similar to Homo sapiens chromosome 19
3804	16835	29721	2.12	1.0E-71	AF218904.1	NT	Homo sapiens attractin precursor (ATRIN) gene, exon 19
4582	17590	30451	2.75	1.0E-71	D28476.1	NT	Human mRNA for KIAA0045 gene, complete cds
7046	20072	33306	1.39	1.0E-71	11426182	NT	Homo sapiens GCN5 (general control of amino-acid synthesis, yeast, homolog)-like 2 (GCN5L2), mRNA
7445	20386	33655	1.35	1.0E-71	AB011131.1	NT	Homo sapiens mRNA for KIAA0559 protein, partial cds
7695	20627	33926	11.37	1.0E-71	U80753.1	NT	Homo sapiens CAGL79 mRNA, partial cds
8725	21655	35001	0.78	1.0E-71	AF105267.1	NT	Homo sapiens glycine-6 (GPC6) mRNA, complete cds
8747	21677	35019	2.11	1.0E-71	11425430	NT	Homo sapiens myomesin (M-protein) 2 (165kD) (MYOM2), mRNA
9014	21943	35298	5.05	1.0E-71	8922811	NT	Homo sapiens hypothetical protein FLJ10998 (FLJ10998), mRNA
9014	21943	35299	5.05	1.0E-71	8922811	NT	Homo sapiens hypothetical protein FLJ10998 (FLJ10998), mRNA
9770	22694	36080	0.91	1.0E-71	S72393.1	NT	GSNK2A1-casein kinase II (CKII) subunit alpha (human, Genomic, 18862 nt)
10512	23399	36811	7.78	1.0E-71	AV007643.1	NT	Homo sapiens cytochrome c oxidase subunit VIIc-related protein gene, complete cds
10570	23456		3.89	1.0E-71	AV761217.1	EST_HUMAN	AV761217 MDS Homo sapiens cDNA clone MDSEIA03 5'
11017	23901	37339	1.18	1.0E-71	11433142	NT	Homo sapiens activated leucocyte cell adhesion molecule (ALCAM), mRNA
11223	24149		3.17	1.0E-71	AV761217.1	EST_HUMAN	AV761217 MDS Homo sapiens cDNA clone MDSEIA03 5'
11319	24238	37682	4.22	1.0E-71	11418903	NT	Homo sapiens coagulation factor XIII, A1 polypeptide (F13A1), mRNA
12734	25375		11.87	1.0E-71	AB011399.1	NT	Homo sapiens gene for AF-6, complete cds
430	13501	26424	1.25	9.0E-72	AB87635.1	EST_HUMAN	wk95g03.x1 NCI CGAP Lu19 Homo sapiens cDNA clone IMAGE:2423188 3' similar to TR:O86705 O86705
430	13501	26425	1.25	9.0E-72	AB87635.1	EST_HUMAN	HYPOHETICAL 38.6 KD PROTEIN, contains Alu repetitive element;
12202	25037	39538	1.6	9.0E-72	BF573955.1	EST_HUMAN	wk95g03.x1 NCI CGAP Lu19 Homo sapiens cDNA clone IMAGE:2423188 3' similar to TR:O86705 O86705
12202	25037	39539	1.6	9.0E-72	BF573955.1	EST_HUMAN	HYPOHETICAL 38.6 KD PROTEIN, contains Alu repetitive element;
6349	19399	32560	0.94	8.0E-72	BF035762.1	EST_HUMAN	602131973F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4271155 5'
4206	17223	30088	1.38	7.0E-72	4501666	NT	602131973F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4271155 5'
							601459747F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3962451 5'
							Homo sapiens aconitase 2, mitochondrial (ACO2), nuclear gene encoding mitochondrial protein, mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4208	17223	30089	1.38	7.0E-72	4501866	NT	Homo sapiens aconitase 2, mitochondrial (ACO2), nuclear gene encoding mitochondrial protein, mRNA
4209	17223	30090	1.38	7.0E-72	4501866	NT	Homo sapiens aconitase 2, mitochondrial (ACO2), nuclear gene encoding mitochondrial protein, mRNA
7484	20424	33704	2.67	7.0E-72	S41694.1	NT	(pseudogene) P-TMAP2=prothymosin alpha [human, Genomic, 1192 nt, segment 2 of 3]
12840	28493		2.12	7.0E-72	F26259.1	EST_HUMAN	HSPD13670 HM3 Homo sapiens cDNA clone 4000051 G02
8955	21895		5.71	6.0E-72	AL163246.2	NT	Homo sapiens chromosome 21 segment HS21C046
68	13182	26089	0.9	5.0E-72	BF333707.1	EST_HUMAN	QV0-CS0010-150900-398-e11 CS0010 Homo sapiens cDNA
66	13182	26090	0.9	5.0E-72	BF333707.1	EST_HUMAN	QV0-CS0010-150900-398-e11 CS0010 Homo sapiens cDNA
67	13182	26089	4.78	6.0E-72	BF333707.1	EST_HUMAN	QV0-CS0010-150900-398-e11 CS0010 Homo sapiens cDNA
67	13182	26090	4.78	6.0E-72	BF333707.1	EST_HUMAN	QV0-CS0010-150900-398-e11 CS0010 Homo sapiens cDNA
1166	14207		1.98	5.0E-72	L11845.1	NT	Homo sapiens alpha-tubulin mRNA, complete cds
7282	20235	33485	1.42	5.0E-72	AU128584.1	EST_HUMAN	AU128584 NT2RP2 Homo sapiens cDNA clone NT2RP2003751 5'
9338	22284	35628	4.11	5.0E-72	AW161274.1	EST_HUMAN	eu80c03.V1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782564 5' similar to
10467	23355	38770	0.68	5.0E-72	AV724632.1	EST_HUMAN	TR:Q99785 Q99785 HYPOTHETICAL 32.4 KQ PROTEIN ; contains element MSR1 repetitive element ;
11689	24591	38068	2.84	5.0E-72	BF331571.1	EST_HUMAN	AV724632 HTB Homo sapiens cDNA clone HTBAK801 5'
11689	24591	38069	2.84	5.0E-72	BF331571.1	EST_HUMAN	MR4-BT0598-010600-005-405 BT0598 Homo sapiens cDNA
12070	24911	38413	1.82	6.0E-72	BE208545.1	EST_HUMAN	MR4-BT0598-010600-005-405 BT0598 Homo sapiens cDNA
12070	24911	38414	1.82	5.0E-72	BE208545.1	EST_HUMAN	ba08g08.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823806 5'
12455	25910		3.12	5.0E-72	BE926845.1	EST_HUMAN	ba08g08.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823806 5'
4935	17834		1.57	4.0E-72	11034844	NT	QV1-BT0632-280800-342-a10 BT0632 Homo sapiens cDNA
6651	18725	31630	0.66	4.0E-72	AF170025.1	NT	Homo sapiens hypothetical protein dJ1057B20.2 (DJ1057B20.2), mRNA
6838	19870	33085	0.86	4.0E-72	T87947.1	EST_HUMAN	Homo sapiens zinc finger protein ZFP-95 (ZFP95) mRNA, alternatively spliced, complete cds
7808	20737	34040	6.48	4.0E-72	5729867	NT	yd03a01.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:115752 5' similar to
10303	23193	36604	1.17	4.0E-72	8923668	NT	SP-A44282 A44282 RETROVIRUS-RELATED POL POLYPYRROLINE - HUMAN ;
						EST_HUMAN	Homo sapiens hct domain and RLD 2 (HERC2), mRNA
						EST_HUMAN	Homo sapiens hypothetical protein FLJ20758 (FLJ20758), mRNA
						EST_HUMAN	qh07c02.x1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:1849730 3' similar to
10903	23788	37216	0.99	4.0E-72	AI248796.1	EST_HUMAN	TR:Q14498 Q14498 SPlicing FACTOR-1 ; contains Alu repetitive element; contains element L1 repetitive element ;
11731	24633	38114	1.52	4.0E-72	AA465388.1	EST_HUMAN	P49131 CHLOROPLAST TRIOSE PHOSPHATE TRANSLOCATOR PRECURSOR ;

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11731	24633	38115	1.52	4.0E-72	AA465388.1	EST_HUMAN	aa23709.s1 NCL CGAP_GCB1 Homo sapiens cDNA clone IMAGE:814121 3' similar to SW GPTR_FLAPR
11959	24802	38300	7.7	4.0E-72	U79421.1	EST_HUMAN	P49131 CHLOROPLAST TRIOSE PHOSPHATE TRANSLOCATOR PRECURSOR. ;
12105	24946	38449	2.25	4.0E-72	T81910.1	EST_HUMAN	yu28a03.t1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:235084 5'
12788	25415	31788	6.47	4.0E-72	AJ277648.2	NT	vd29d09.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:109649 3'
20	13136	28022	3.4	3.0E-72	5031976	NT	Homo sapiens WEE1 gene for protein kinase and partial ZNF143 gene for zinc finger transcription factor
928	13980		1.46	3.0E-72	AA723823.1	EST_HUMAN	Homo sapiens pre-B-cell colony-enhancing factor (PBEF) mRNA
1182	14222	27169	4.37	3.0E-72	U16306.1	NT	ah63a06.s1 Soares testis_NHT Homo sapiens cDNA clone J310290 3'
1182	14222	27160	4.37	3.0E-72	U16308.1	NT	Human chondroitin sulfate proteoglycan versican V0 splice-variant precursor peptide mRNA, complete cds
1221	14259	27199	3.81	3.0E-72	U80226.1	NT	Human chondroitin sulfate proteoglycan versican V0 splice-variant precursor peptide mRNA, complete cds
1221	14259	27200	3.81	3.0E-72	U80226.1	NT	Human gamma-aminobutyric acid transaminase mRNA, partial cds
1541	14571	27530	0.98	3.0E-72	BE242161.1	EST_HUMAN	Human gamma-aminobutyric acid transaminase mRNA, partial cds
3124	16175	29070	15.69	3.0E-72	AJ228043.1	NT	TCAAAP1E1252 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCOA Homo sapiens cDNA clone TCAAAP1252
3323	16369	29270	2.74	3.0E-72	8923548	NT	Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22, segment 3/3
3898	16925	29802	2.48	3.0E-72	S77589.1	NT	Homo sapiens hypothetical protein FLJ20585 (FLJ20585), mRNA
4661	17665	30534	3.32	3.0E-72	11416196	NT	TCR V delta 2-C alpha T-cell receptor delta and C alpha fusion gene (alternatively spliced, splice junction)
5710	18763		1.15	3.0E-72	4769093	NT	[human, precursor B-cell line REH, mRNA Partial, 211 nt]
6209	19284	32414	1.98	3.0E-72	AF073387.1	NT	Homo sapiens hypothetical protein (FLJ11127), mRNA
6209	19284	32415	1.98	3.0E-72	AF073387.1	NT	Homo sapiens semaphorin W (SEMAW) mRNA
6407	19455	32828	4.54	3.0E-72	AB029004.1	NT	Homo sapiens growth factor receptor-bound protein 10 (GRB10) gene, exon 5
6407	19455	32829	4.54	3.0E-72	AB029004.1	NT	Homo sapiens growth factor receptor-bound protein 10 (GRB10) gene, exon 5
6889	19929	33146	3.61	3.0E-72	4826987	NT	Homo sapiens mRNA for KIAA1081 protein, partial cds
8022	20938	34253	2.47	3.0E-72	U80017.1	NT	Homo sapiens mRNA for KIAA1081 protein, partial cds
8754	21684	35027	1.39	3.0E-72	5031892	NT	Homo sapiens ribosomal protein L3-like (RPL3L) mRNA
10913	23798	37227	1.23	3.0E-72	X98289.1	NT	Homo sapiens basic transcription factor 2 p44 (btf2p44) gene, partial cds, neuronal apoptosis inhibitory protein (napi) and survival motor neuron protein (smn) genes, complete cds
12706	25361	31798	2.29	3.0E-72	AB011399.1	NT	Homo sapiens nuclear receptor subfamily 1, group H, member 3 (NR1H3), mRNA
6184	19241	32388	1.3	2.0E-72	11426671	NT	Homo sapiens S100A12 gene for Calgranulin C, exon 2 and joined cds
							Homo sapiens gene for AF-6, complete cds
							Homo sapiens solute carrier family 13 (sodium-dependent dicarboxylate transporter), member 2 (SLC13A2), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Description
9641	22567	35937	1.01	2.0E-72	BF308560.1	EST_HUMAN	601890419F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4131461 5'
9641	22567	35938	1.01	2.0E-72	BF308560.1	EST_HUMAN	601890419F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4131461 5'
11181	24107	37554	2.45	2.0E-72	AA789277.1	EST_HUMAN	a28b09.s1 Soares_testis_NHT Homo sapiens cDNA clone 1391609 3' similar to gb:X02067 H.sapiens
12782	25411	31765	3.64	2.0E-72	AF182714.1	NT	mRNA for 7SL RNA pseudogene (HUMAN);
2089	15103	28103	1.04	1.0E-72	AA848226.1	EST_HUMAN	Rattus norvegicus putative phosphate/phosphoenolpyruvate translocator mRNA, complete cds
5975	18040	32162	3.82	1.0E-72	7657676	NT	ai83d02.s1 Soares_papillary_tumor_NHHPA Homo sapiens cDNA clone IMAGE:1367395 3'
6840	19872	33086	1.11	1.0E-72	11321578	NT	Homo sapiens vacuolar protein sorting 41 (yeast homolog) (VPS41), mRNA
6840	19872	33087	1.11	1.0E-72	11321578	NT	Homo sapiens myosin, heavy polypeptide 13, skeletal muscle (MYH13), mRNA
6923	25668	33172	1.19	1.0E-72	AV751818	EST_HUMAN	Homo sapiens myosin, heavy polypeptide 13, skeletal muscle (MYH13), mRNA
7732	20684	33962	0.43	1.0E-72	BE791978.1	EST_HUMAN	AV751818 NPD Homo sapiens cDNA clone NPDAIE11 5'
8086	20698	34318	3.7	1.0E-72	BE175434.1	EST_HUMAN	60156588F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3940460 5'
8086	20698	34319	3.7	1.0E-72	BE175434.1	EST_HUMAN	RC4-HT0578-170300-012-g02 HT0578 Homo sapiens cDNA
10119	23010	36406	9.3	1.0E-72	AF222742.1	NT	RC4-HT0578-170300-012-g02 HT0578 Homo sapiens cDNA
10119	23010	36407	9.3	1.0E-72	AF222742.1	NT	Homo sapiens synaptic glycoprotein SC2 (SC2) mRNA, complete cds
1480	14511	27471	0.91	8.0E-73	AW374968.1	EST_HUMAN	Homo sapiens synaptic glycoprotein SC2 (SC2) mRNA, complete cds
6273	19324	32490	0.89	9.0E-73	11526883	NT	MR0-C70063-071099-002-n11 CT0063 Homo sapiens cDNA
11380	24306		13.13	9.0E-73	11424098	NT	Homo sapiens membrane protein, palmitoylated 3 (MAGUK p55 subfamily member 3) (MPP3), mRNA
1004	14107	27045	2.01	8.0E-73	AW071755.1	EST_HUMAN	Homo sapiens ribosomal protein L13a (RPL13A), mRNA
3336	16382	29281	0.74	8.0E-73	11435180	NT	Homo sapiens ribosomal protein L13a (RPL13A), mRNA
5772	18845	31948	0.94	8.0E-73	4505798	NT	ws55c08.x1 NCI_CGAP_Bim25 Homo sapiens cDNA clone IMAGE:2501098 3' similar to TR:Q59050
6854	19886	33100	4.57	8.0E-73	11426469	NT	Q59050 HYPOTHETICAL PROTEIN MJ1693 ;
8874	21805	34947	2.13	8.0E-73	AF113129.1	NT	Homo sapiens gephyrin (GPH), mRNA
9891	22806	36194	4.46	8.0E-73	BE016900.1	EST_HUMAN	Homo sapiens phosphotyrosine 3-kinase, class 2, alpha polypeptide (PIK3C2A) mRNA
10260	23150	36557	1.54	8.0E-73	11526037	NT	Homo sapiens phosphotyrosine 3-kinase, class 2, alpha polypeptide (PIK3C2A) mRNA
10260	23150	36558	1.54	8.0E-73	11526037	NT	Homo sapiens phosphotyrosine 3-kinase, class 2, alpha polypeptide (PIK3C2A) mRNA
12830	26447	31775	4.36	8.0E-73	11418189	NT	Homo sapiens phosphotyrosine 3-kinase, class 2, alpha polypeptide (PIK3C2A) mRNA
1181	14202	27140	0.94	7.0E-73	8023260	NT	Homo sapiens thyroid autoantigen 70kD (Ku antigen) (G22P1), mRNA
3344	16390	29290	0.91	7.0E-73	AL163206.2	NT	Homo sapiens hypothetical protein FLJ20309 (FLJ20309), mRNA
							Homo sapiens chromosome 21 segment HS21C008

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4314	17328	30193	2.32	7.0E-73	AF019413.1	NT	Homo sapiens HLA class III region containing tenascin X (tenascin-X) gene, partial cds; cytochrome P450 21-hydroxylase (CYP21B), complement component C4 (C4B) G11, helicase (SK12W), RD, complement factor B (B), and complement component C2 (C2) genes >
5058	18066		1.6	7.0E-73	AL163282.2	NT	Homo sapiens chromosome 21 segment HS21C082
108	13269		2.12	6.0E-73	AL163218.2	NT	Homo sapiens chromosome 21 segment HS21C082
7538	20475	33763	3.31	6.0E-73	BE166574.1	EST_HUMAN	QV0-HT0494-020300-137-d03 HT0494 Homo sapiens cDNA
5435	18517	31242	1.85	4.0E-73	11422159	NT	Homo sapiens HELG protein (FAM14A1), mRNA
1368	14401	27355	0.98	3.0E-73	AW843789.1	EST_HUMAN	GM0-CN0044-260100-164-08 CN0044 Homo sapiens cDNA
1887	14908	27893	1.08	3.0E-73	11435913	NT	Homo sapiens heme-binding protein (HEBP), mRNA
1887	14908	27894	1.08	3.0E-73	11435913	NT	Homo sapiens heme-binding protein (HEBP), mRNA
6895	20022	33254	0.98	3.0E-73	AA138403.1	EST_HUMAN	zn95604.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:569590 3' similar to
9317	22245	35606	0.87	3.0E-73	AV729428.1	EST_HUMAN	gb:223064_cds1 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN G (HUMAN);
9317	22245	35607	0.87	3.0E-73	AV729428.1	EST_HUMAN	AV729428 HTC Homo sapiens cDNA clone HTCAAF071 5'
12039	24890		1.57	3.0E-73	AI004040.1	EST_HUMAN	ou11402.x1 Soares_NFL_T_GEC_S1 Homo sapiens cDNA clone IMAGE:1025955 3'
13047	25580		2.1	3.0E-73	AW898081.1	EST_HUMAN	RC3-NN0068-270400-011-c04 NN0068 Homo sapiens cDNA
876	13929	26876	2.1	2.0E-73	AF139897.1	NT	Homo sapiens BASS1 (BASS1) mRNA, partial cds
1861	14880		3.01	2.0E-73	AW898081.1	EST_HUMAN	RC3-NN0068-270400-011-c04 NN0068 Homo sapiens cDNA
2317	15325		1.83	2.0E-73	U01317.1	NT	Human beta globin region on chromosome 11
3224	16272	29172	2.63	2.0E-73	4502582	NT	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3609	16846	29345	0.73	2.0E-73	7669539	NT	Homo sapiens Parkinson disease (autosomal recessive, juvenile) 2, parkin (PARK2), transcript variant 3, mRNA
3609	16846	29646	0.73	2.0E-73	7669539	NT	Homo sapiens Parkinson disease (autosomal recessive, juvenile) 2, parkin (PARK2), transcript variant 3, mRNA
6705	19741	32942	0.72	2.0E-73	AF086824.1	NT	Mus musculus rho/rac-interacting citron kinase (Crik) mRNA, complete cds
6705	19741	32943	0.72	2.0E-73	AF086824.1	NT	Mus musculus rho/rac-interacting citron kinase (Crik) mRNA, complete cds
8755	18786	33003	7.13	2.0E-73	AB046811.1	NT	Homo sapiens mRNA for KIAA1591 protein, partial cds
8997	20024	33256	1.49	2.0E-73	11431471	NT	Homo sapiens interleukin 4 receptor (IL4R), mRNA
6997	20024	33257	1.49	2.0E-73	11431471	NT	Homo sapiens interleukin 4 receptor (IL4R), mRNA
8290	21203	34539	0.6	2.0E-73	MG4048.1	NT	Human peripheral myelin protein 22 mRNA, complete cds
8307	21211	34648	0.54	2.0E-73	AB037750.1	NT	Homo sapiens mRNA for KIAA1329 protein, partial cds
10805	23790	37219	1.25	2.0E-73	4604168	NT	Homo sapiens glutathione synthetase (GSS) mRNA
10875	23859	37287	1.59	2.0E-73	11496980	NT	Homo sapiens supervillin (SVL), transcript variant 1, mRNA
10975	23859	37288	1.59	2.0E-73	11496980	NT	Homo sapiens supervillin (SVL), transcript variant 1, mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11494	24408	37858	3.28	2.0E-73	4557612	NT	Homo sapiens galactosylceramidase (Krabbe disease) (GALC), mRNA
11494	24406	37859	3.28	2.0E-73	4557612	NT	Homo sapiens galactosylceramidase (Krabbe disease) (GALC), mRNA
11622	24432	37890	1.83	2.0E-73	AB028982.1	NT	Homo sapiens mRNA for KIAA1059 protein, partial cds
12835	14980		2.74	2.0E-73	AW698081.1	EST_HUMAN	RC3-ND006-270400-011-c04 NN0068 Homo sapiens cDNA
1807	14633	27803	4.82	1.0E-73	AU121886.1	EST_HUMAN	AU121885 MAMMA1 Homo sapiens cDNA clone MAMMA1000490 5'
2507	15508	28510	1.08	1.0E-73	AF198349.1	NT	Gallus gallus Dach2 protein (Dach2) mRNA, complete cds
6619	18659	32843	1.1	1.0E-73	BE151283.1	EST_HUMAN	CN1-HT0282-111199-042-H10 HT0282 Homo sapiens cDNA
10031	22831	36317	1.58	1.0E-73	AI147427.1	EST_HUMAN	qg91b07.1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1839637 5' similar to contains element
11884	23984	37422	1.85	1.0E-73	BE385477.1	EST_HUMAN	MER22 repetitive element
764	13821	26760	2.66	8.0E-74	4657428	NT	Homo sapiens CD39-like 4 (CD39L4) mRNA
6136	19195	32332	1.98	8.0E-74	S83194.1	NT	Ca2+/calmodulin-dependent protein kinase IV kinase isoform [rats, brain, mRNA, 3428 nt]
6136	19195	32333	1.86	8.0E-74	S83194.1	NT	Ca2+/calmodulin-dependent protein kinase IV kinase isoform [rats, brain, mRNA, 3428 nt]
11315	24234		1.47	8.0E-74	N52239.1	EST_HUMAN	y446g10.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:246828 3'
1884	14982	27865	8.12	7.0E-74	AJ001689.1	NT	Homo sapiens NKG2D gene, exon 10
3375	19419	28321	2.2	7.0E-74	AL183246.2	NT	Homo sapiens chromosome 21 segment HS21C046
9785	22749	36131	2.77	7.0E-74	BE987432.1	EST_HUMAN	G01649284F1 NIH_MGC_73 Homo sapiens cDNA clone IMAGE:3932897 5'
12829	25446	31774	6.5	7.0E-74	BE286305.1	EST_HUMAN	G01191927F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3535855 5'
1149	14181	27130	4.16	6.0E-74	AF108907.1	NT	Homo sapiens S164 gene, partial cds; PS1 and hypothetical protein genes, complete cds; and S171 gene, partial cds
1650	14681	27643	0.08	6.0E-74	AW263177.1	EST_HUMAN	xn78g07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2700638 3'
2337	15345	28348	8.31	6.0E-74	BE388260.1	EST_HUMAN	G01283521F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3603453 5'
2337	15345	28349	8.31	6.0E-74	BE388260.1	EST_HUMAN	G01283521F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3603453 5'
2906	18959	28860	1.13	6.0E-74	AW014039.1	EST_HUMAN	U1-H-B10-aah-h-03-0-U1.s1 NCI_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2709365 3'
2808	15959	28861	1.13	6.0E-74	AW014039.1	EST_HUMAN	U1-H-B10-aah-h-03-0-U1.s1 NCI_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2709365 3'
3776	18807	28694	1.43	6.0E-74	BE048846.1	EST_HUMAN	h54611.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3132332 3'
3776	18807	28695	1.43	6.0E-74	BE048846.1	EST_HUMAN	h54611.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3132332 3'
5550	18628	31506	3.1	6.0E-74	11056013	NT	Homo sapiens actin filament associated protein (AFAP), mRNA
930	13982	28927	1.88	5.0E-74	AW020988.1	EST_HUMAN	df17c09.y1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:2483704 5'
2753	15744		2.92	5.0E-74	AW362755.1	EST_HUMAN	PM0-CT0289-271099-001-h07 QT0289 Homo sapiens cDNA
5592	18688	31546	2.06	5.0E-74	11425417	NT	Homo sapiens phosphatidylinositol glycan, class L (PIGL), mRNA
5000	18065	32192	11.56	6.0E-74	X89670.1	NT	H. sapiens mRNA for TPC16 protein
6052	19114	32243	10.24	5.0E-74	4507866	NT	Homo sapiens VAMP (vesicle-associated membrane protein) associated protein A (33kd) (VAPA) mRNA, end translated products



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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6128	19187	32322	2.34	5.0E-74	11431471	NT	Homo sapiens interleukin 4 receptor (IL4R), mRNA
6128	19187	32323	2.34	5.0E-74	11431471	NT	Homo sapiens interleukin 4 receptor (IL4R), mRNA
7223	20222	33470	3.39	5.0E-74	7662263	NT	Homo sapiens KIAA0716 gene product (KIAA0716), mRNA
8121	20222	33470	0.88	5.0E-74	7662263	NT	Homo sapiens KIAA0716 gene product (KIAA0716), mRNA
8614	21545	34886	1.82	5.0E-74	11345483	NT	Homo sapiens hypothetical protein FLJ13222 (FLJ13222), mRNA
11176	24103	37549	2.06	5.0E-74	Y09420.1	NT	H. sapiens mRNA for HIP-1
11176	24103	37550	2.06	5.0E-74	Y09420.1	NT	H. sapiens mRNA for HIP-1
289	13392	29311	1.99	4.0E-74	D87876.1	NT	Homo sapiens DNA for amyloid precursor protein, complete cds
877	13930	26877	2.7	4.0E-74	AB028942.1	NT	Homo sapiens mRNA for KIAA1019 protein, partial cds
1976	14994	27977	1.97	4.0E-74	AB026898.1	NT	Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds)
1976	14994	27978	1.87	4.0E-74	AB026898.1	NT	Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds)
2086	16100	28098	3.61	4.0E-74	4506192	NT	Homo sapiens proteasome (prosome, macropain) subunit, beta type, 1 (PSMB1) mRNA
2086	16100	28100	3.61	4.0E-74	4506192	NT	Homo sapiens proteasome (prosome, macropain) subunit, beta type, 1 (PSMB1) mRNA
2146	15159	28161	1.35	4.0E-74	AB032894.1	NT	Homo sapiens mRNA for KIAA1168 protein, partial cds
2451	15453	28452	0.81	4.0E-74	AJ006976.1	NT	Homo sapiens PLP gene
3140	16190	28083	4.68	4.0E-74	AJ006976.1	NT	Homo sapiens PLP gene
3589	16628	28529	0.87	4.0E-74	AL163210.2	NT	Homo sapiens chromosome 21 segment HS21C010
4150	17171	30043	0.93	4.0E-74	AL163247.2	NT	Homo sapiens chromosome 21 segment HS21C047
4198	17217	30083	1.02	4.0E-74	4503168	NT	Homo sapiens cut (Drosophila)-like 1 (CCAAT displacement protein) (CUTL1) mRNA
4672	17677	30546	1.68	4.0E-74	7662163	NT	Homo sapiens KIAA0569 gene product (KIAA0569), mRNA
4727	17732	30594	1.13	4.0E-74	Z17227.1	NT	Homo sapiens mRNA for transmembrane receptor, protein
9114	22042		5.63	3.0E-74	AA300378.1	EST_HUMAN	EST13131 Thymus tumor III Homo sapiens cDNA 5' and similar to similar to ribosomal protein L37
9138	22066	35427	0.61	3.0E-74	9866912	NT	Homo sapiens actin-related protein 3-beta (ARP3BETA), mRNA
9911	22889	36286	2.27	3.0E-74	M78994.1	EST_HUMAN	EST10132 Subtracted Hippocampus, Strategene (cat. #936206) Homo sapiens cDNA clone HHCPF81
10826	23712	37139	2.8	3.0E-74	AA601493.1	EST_HUMAN	no17g05.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100984 3'
984	14035	26978	107.11	2.0E-74	7669491	NT	Homo sapiens glyceraldehyde-3-phosphate dehydrogenase (GAPD), mRNA
984	14035	26979	107.11	2.0E-74	7669491	NT	Homo sapiens glyceraldehyde-3-phosphate dehydrogenase (GAPD), mRNA
1203	14242	27183	0.86	2.0E-74	AF020092.1	NT	Human endogenous retrovirus HERV-K-T47D
1272	14306	27257	1.38	2.0E-74	A1950528.1	EST_HUMAN	w557e07.x1 NCI_CGAP_Lu28 Homo sapiens cDNA clone IMAGE:2547204 3' similar to SW:G965_HUMAN Q08379 GOLGIN-95, contains element MER22 repetitive element;

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1618	14648	27610	2.74	2.0E-74	4885188	NT	Homo sapiens epidermal growth factor receptor (avian erythroblastic leukemia viral (v-erb-b) oncogene homolog) (EGFR) mRNA
1618	14648	27611	2.74	2.0E-74	4885198	NT	Homo sapiens epidermal growth factor receptor (avian erythroblastic leukemia viral (v-erb-b) oncogene homolog) (EGFR) mRNA
2644	15640	28639	2.02	2.0E-74	AI657280.1	EST_HUMAN	PT2.1_15_G11.r.tumor2 Homo sapiens cDNA 3'
5127	18123	30984	3.33	2.0E-74	AL355092.1	NT	Novel human gene mapping to chromosome 22
5127	18123	30985	3.33	2.0E-74	AL355092.1	NT	Novel human gene mapping to chromosome 22
6133	18128	30971	4.76	2.0E-74	J02963.1	NT	Human platelet glycoprotein IIB mRNA, 3' end
5393	18376	31216	0.98	2.0E-74	BE409484.1	EST_HUMAN	601303866F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638344 5'
5393	18376	31217	0.98	2.0E-74	BE409484.1	EST_HUMAN	601303866F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638344 5'
6009	25637	32198	1.75	2.0E-74	BE711134.1	EST_HUMAN	RC8-HT0678-220500-011-C03 HT0678 Homo sapiens cDNA
6114	25840	32306	1.97	2.0E-74	11439587	NT	Homo sapiens PDZ-73 protein (PDZ-73/NY-CO-38), mRNA
6114	25840	32307	1.97	2.0E-74	11439587	NT	Homo sapiens PDZ-73 protein (PDZ-73/NY-CO-38), mRNA
6193	25840	32306	2.87	2.0E-74	11439587	NT	Homo sapiens PDZ-73 protein (PDZ-73/NY-CO-38), mRNA
6193	25840	32307	2.87	2.0E-74	11439587	NT	Homo sapiens PDZ-73 protein (PDZ-73/NY-CO-38), mRNA
7462	20402	33677	1.22	2.0E-74	BF030788.1	EST_HUMAN	601557524F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827549 5'
8519	21450	34792	1.93	2.0E-74	AB037816.1	NT	Homo sapiens mRNA for KIAA1395 protein, partial cds
9920	22908	36297	6.09	2.0E-74	AL163204.2	NT	Homo sapiens chromosome 21 segment HS21C004
12572	28277	31742	2.33	2.0E-74	AA196181.1	EST_HUMAN	zp96a06.s1 Strelagene muscle 937209 Homo sapiens cDNA clone IMAGE:628018 3'
13065	25591	31742	2.38	2.0E-74	BF666568.1	EST_HUMAN	602121428F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4278559 5'
13079	25944	26073	1.5	2.0E-74	BF002855.1	EST_HUMAN	7650a08.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:3309878 3'
56	13173	26073	1.27	1.0E-74	7657334	NT	Homo sapiens Miescher/NIK-related kinase (MINK), mRNA
357	13444	26356	3.35	1.0E-74	AW816405.1	EST_HUMAN	QV4-ST0234-181199-037-05 ST0234 Homo sapiens cDNA
522	13592	26504	0.91	1.0E-74	8922829	NT	Homo sapiens hypothetical protein FLJ11026 (FLJ11026), mRNA
529	13598	26509	6.61	1.0E-74	X02344.1	NT	Homo sapiens beta 2 gene
622	13687	26590	2.31	1.0E-74	4508020	NT	Homo sapiens zinc finger protein 259 (ZNF259) mRNA
1027	14076	27016	1.47	1.0E-74	AL163246.2	NT	Homo sapiens chromosome 21 segment HS21C048
2239	15249	28258	4.43	1.0E-74	AB002059.1	NT	Homo sapiens DNA for Human P2XM, complete cds
3184	16233	29128	2.62	1.0E-74	4758697	NT	Homo sapiens mannosidase, alpha, class 2A, member 1 (MAN2A1), mRNA
4051	17078	29963	5.43	1.0E-74	AL163268.2	NT	Homo sapiens chromosome 21 segment HS21C068
4151	17172	30044	0.68	1.0E-74	BE083090.1	EST_HUMAN	RC2-BT0642-270300-019-05 BT0642 Homo sapiens cDNA
7002	20029	33260	3.95	1.0E-74	M89914.1	NT	Human neurofibromin (NF1) gene, complete cds
6074	20987	34304	1.3	1.0E-74	11417977	NT	Homo sapiens KIAA0862 protein (KIAA0862), mRNA
8323	21228	34582	0.45	1.0E-74	9506658	NT	Homo sapiens hypothetical protein similar to tumor suppressor p53ING1 (FLJ20089), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8634	21565	34902	1.33	1.0E-74	BE549105.1	EST_HUMAN	60107008F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3458280 5'
8634	21565	34903	1.33	1.0E-74	BE549105.1	EST_HUMAN	60107008F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3458260 5'
9363	22291	36656	4.87	1.0E-74	AF214502.1	NT	Homo sapiens tracheal epithelium enriched protein (PLUNC) gene, complete cds
9392	23230	35683	0.84	1.0E-74	BF351931.1	EST_HUMAN	MRO-HT0539-230500-021-e03 HT0539 Homo sapiens cDNA
10734	23620	37049	0.62	1.0E-74	AJ251550.1	NT	Homo sapiens partial AK155 gene for AK155 protein, exons 1-3 and joined CDS
10734	23620	37050	0.62	1.0E-74	AJ251550.1	NT	Homo sapiens partial AK155 gene for AK155 protein, exons 1-3 and joined CDS
10960	23844	37270	1.81	1.0E-74	11420549	NT	Homo sapiens hypothetical protein FLJ10783 (FLJ10783), mRNA
12245	25069	38567	1.63	1.0E-74	11417858	NT	Homo sapiens glutathione S-transferase theta 2 (GSTT2), mRNA
12321	25122		4.66	1.0E-74	11417856	NT	Homo sapiens glutathione S-transferase theta 2 (GSTT2), mRNA
12451	15249	28256	1.9	1.0E-74	AB002039.1	NT	Homo sapiens DNA for Human P2XM, complete cds
2692	15686		5.41	8.0E-75	AF176228.1	NT	Homo sapiens DNA cytosine-5 methyltransferase 3B (DNMT3B) mRNA, complete cds
12595	25292		4.03	8.0E-75	AL163202.2	NT	Homo sapiens chromosome 21 segment HS21C002
2342	15350	26353	2.84	6.0E-75	AB187415.1	EST_HUMAN	wk39a03.x1 NCI_CGAP_P22 Homo sapiens cDNA clone IMAGE:2417654 3' similar to gb:U14123_cds4
6959	19988	33212	0.48	5.0E-75	BF211517.1	EST_HUMAN	RETROVIRUS-RELATED POL POLYPROTEIN (HUMAN);
8274	21179	34516	0.41	5.0E-75	AA573446.1	EST_HUMAN	601812201F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4046497 5'
8274	21179	34517	0.41	5.0E-75	AA573446.1	EST_HUMAN	nk99d03.s1 NCI_CGAP_C03 Homo sapiens cDNA clone IMAGE:1028933 3'
9485	22393	35754	2.68	5.0E-75	BE272325.1	EST_HUMAN	601126068F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:2898666 6'
9661	22587	35958	0.63	5.0E-75	AA132611.1	EST_HUMAN	zot1e08.r1 Stralagene colan (#837204) Homo sapiens cDNA clone IMAGE:567174 5'
9736	22681	36044	0.53	5.0E-75	BE561655.1	EST_HUMAN	601346909F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3687458 5'
9736	22681	36045	0.53	5.0E-75	BE561655.1	EST_HUMAN	601346909F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3687458 5'
9912	22900	36287	1.18	6.0E-75	BF690254.1	EST_HUMAN	602186616T1 NIH_MGC_49 Homo sapiens cDNA clone IMAGE:4268738 3'
10729	23615	37042	2.99	5.0E-75	AB38623.1	EST_HUMAN	tt31c12.x1 NCI_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2242390 3' similar to TR:P97361 P97361
116	13224	26136	1.89	4.0E-75	BE081333.1	EST_HUMAN	QV1-BT0632-210200-079-e02 BT0632 Homo sapiens cDNA
481	13552		1.19	4.0E-75	N36757.1	EST_HUMAN	yx90h08.r1 Soates melanocyte ZNBM-Homo sapiens cDNA clone IMAGE:269055 6'
1790	14816	27785	1.28	4.0E-75	AW687230.1	EST_HUMAN	CMD-NN0057-150400-335-a11 NN0057 Homo sapiens cDNA
2993	15947	28847	5.51	4.0E-75	BE409464.1	EST_HUMAN	6C1303866F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638344 5'
3359	16590	28500	1.23	4.0E-75	8922637	NT	Homo sapiens hypothetical protein FLJ10747 (FLJ10747), mRNA
5719	18792	31883	0.58	4.0E-75	11417946	NT	Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA
5719	18792	31884	0.58	4.0E-75	11417946	NT	Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA
6521	19565	32747	5.28	4.0E-75	5579457	NT	Homo sapiens eukaryotic translation initiation factor 3, subunit B (EIF3S8), mRNA
7064	20088	33322	3.83	4.0E-75	11417946	NT	Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA
7064	20088	33323	3.83	4.0E-75	11417946	NT	Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1127	24057	37503	16.27	4.0E-75	7698506	NT	Homo sapiens myosin, heavy polypeptide 1, skeletal muscle, adult (MYH1), mRNA
1030	14079	27019	3.17	3.0E-75	AF157623.1	NT	Homo sapiens HTRA serine protease (PRSS11) gene, complete cds
1031	14079	27019	2.28	3.0E-75	AF157623.1	NT	Homo sapiens HTRA serine protease (PRSS11) gene, complete cds
1860	14832	27862	2.12	3.0E-75	AB011153.1	NT	Homo sapiens mRNA for KIAA0581 protein, partial cds
2124	15137	28143	1.01	3.0E-76	4507334	NT	Homo sapiens synaptotagmin 1 (SYNJ1), mRNA
2446	15450	28446	2.67	3.0E-75	4758163	NT	Homo sapiens synaptosomal-associated protein, 29kD (SNAP29) mRNA
3067	16119	29020	0.86	3.0E-75	AL163201.2	NT	Homo sapiens chromosome 21 segment HS21C001
3232	16280	29180	1.16	3.0E-75	AB011153.1	NT	Homo sapiens mRNA for KIAA0581 protein, partial cds
3398	16441	29346	0.84	3.0E-75	M72393.1	NT	Human calcium-dependent phospholipid-binding protein (PLA2) mRNA, complete cds
3399	16441	29347	0.84	3.0E-75	M72393.1	NT	Human calcium-dependent phospholipid-binding protein (PLA2) mRNA, complete cds
4543	17552	30412	0.74	3.0E-75	7662421	NT	Homo sapiens KIAA0971 protein (KIAA0971), mRNA
5432	18314	31237	0.82	3.0E-75	11420896	NT	Homo sapiens adaptor-related protein complex 1, sigma 2 subunit (AP1S2), mRNA
5432	18314	31238	0.82	3.0E-75	11420896	NT	Homo sapiens adaptor-related protein complex 1, sigma 2 subunit (AP1S2), mRNA
6786	19819	33031	0.71	3.0E-75	AF123074.1	NT	Homo sapiens cytoplasmic dynein intermediate chain 1 mRNA, complete cds
6786	19819	33032	0.71	3.0E-75	AF123074.1	NT	Homo sapiens cytoplasmic dynein intermediate chain 1 mRNA, complete cds
7076	20282	33538	1.67	3.0E-75	11526319	NT	Homo sapiens HIR (histone cell cycle regulation defective, S. cerevisiae) homolog A (HIRA), mRNA
7076	20282	33539	1.67	3.0E-75	11526319	NT	Homo sapiens HIR (histone cell cycle regulation defective, S. cerevisiae) homolog A (HIRA), mRNA
7495	20435	33714	4.51	3.0E-75	7662209	NT	Homo sapiens KIAA0623 gene product (KIAA0623), mRNA
7495	20435	33716	4.51	3.0E-75	7662209	NT	Homo sapiens KIAA0623 gene product (KIAA0623), mRNA
8070	20983	34297	3.06	3.0E-75	4885632	NT	Homo sapiens Oncogene TIM (TIM) mRNA
8070	20983	34298	3.06	3.0E-75	4885632	NT	Homo sapiens Oncogene TIM (TIM) mRNA
9538	22463	35825	1.39	3.0E-75	11420804	NT	Homo sapiens snail 1 (Drosophila homolog), zinc finger protein (SNAIL), mRNA
10203	23064	36494	0.82	3.0E-75	11420222	NT	Homo sapiens Drosophila Ketch like protein (DKECHL), mRNA
12200	25035	38535	1.91	3.0E-75	6715588	NT	Homo sapiens Brefeldin A-inhibited guanine nucleotide-exchange protein 1 (BIG1), mRNA
12200	25035	38536	1.91	3.0E-75	6715588	NT	Homo sapiens Brefeldin A-inhibited guanine nucleotide-exchange protein 1 (BIG1), mRNA
5870	18541		1.48	2.0E-75	AV734680.1	EST_HUMAN	AV734680 cDNA Homo sapiens cDNA clone cDABED02 5'
9310	22238	35569	2.53	2.0E-75	AJ311783.1	EST_HUMAN	q91e02.x1 NCLCGAP_Kid5 Homo sapiens cDNA clone IMAGE:1915898 3' similar to TR:Q69386 Q69386 POL/ENV GENE:
2322	16330	28333	13.14	1.0E-75	AW168135.1	EST_HUMAN	X60602.x1 NCLCGAP_U14 Homo sapiens cDNA clone IMAGE:2632707 3' similar to contains PTR7.H
2986	16040	28945	2.2	1.0E-75	X62221.1	NT	PTR7 repetitive element:
8027	20643	34258	0.64	1.0E-75	BE082528.1	EST_HUMAN	H.sapiens ERCC2 gene, exons 1 & 2 (partial) RC5-BT0640-020300-031-H03 BT0640 Homo sapiens cDNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8027	20943	34259	0.64	1.0E-75	BE082528.1	EST_HUMAN	RC6-BT0640-020300-031-H03 BT0640 Homo sapiens cDNA
8985	21914		6.94	1.0E-75	AA399270.1	EST_HUMAN	Z57H03.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:726485 3' similar to gb:M13632 40S
9962	22867	36266	3.92	1.0E-75	BF313645.1	EST_HUMAN	RIBOSOMAL PROTEIN S17 (HUMAN);
9962	22867	36256	3.92	1.0E-75	BF313645.1	EST_HUMAN	601900294F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4129678 5'
11320	24239		5.75	1.0E-75	AA684377.1	EST_HUMAN	601900294F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4129678 5'
11535	24445	37906	2.88	1.0E-76	AF223391.1	NT	ac77b08.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:868599 3'
12495	18435	31357	2.2	1.0E-75	BE894192.1	EST_HUMAN	Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced
47	13164	28057	1.62	9.0E-76	A1652648.1	EST_HUMAN	601437130F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3922303 5'
47	13164	26058	1.62	9.0E-76	A1652648.1	EST_HUMAN	wb30b10.x1 NCL_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2307163 3' similar to TR.O75235 O75235 TRAP1;
10413	23302	36719	13.15	9.0E-76	M12837.1	NT	wb30b10.x1 NCL_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2307163 3' similar to TR.O75235 O75235 TRAP1;
153	13263	26171	9.17	8.0E-76	AF154830.1	NT	Human ferritin Heavy subunit mRNA, complete cds
968	14017	26960	15.99	8.0E-76	4504374	NT	Homo sapiens carbamyl phosphate synthetase 1 mRNA, complete cds
968	14017	26961	15.99	8.0E-76	4504374	NT	Homo sapiens H factor 1 (complement) (HF1) mRNA
2568	15566	28565	1.48	8.0E-76	AF229180.1	NT	Homo sapiens H factor 1 (complement) (HF1) mRNA
2953	16005	28907	0.99	8.0E-76	7706724	NT	Homo sapiens alpha-aminoadipate semialdehyde synthase mRNA, complete cds
6412	19460	32834	5.93	8.0E-76	11421442	NT	Homo sapiens mediator (Sur2), mRNA
7910	20834	34136	1.36	8.0E-76	11436215	NT	Homo sapiens LIM domain kinase 1 (LIMK1), mRNA
7999	20917	34233	1.07	8.0E-76	11419212	NT	Homo sapiens serine/threonine kinase 2 (STK2), mRNA
8872	21802	35156	0.73	8.0E-76	11416981	NT	Homo sapiens mitochondrial carrier family protein (LOC55972), mRNA
10866	23752	37177	1.15	8.0E-76	M13792.1	NT	Homo sapiens AIM-1 protein (LOC51151), mRNA
11110	24041	37488	5.28	8.0E-76	10442821	NT	Human adenosine deaminase (ADA) gene, complete cds
12816	25437		2.4	8.0E-76	11417882	NT	Homo sapiens baculoviral IAP repeat-containing 8 (BIRC8), mRNA
802	13857	26793	3.07	7.0E-76	5016092	NT	Homo sapiens calcineurin binding protein 1 (KIA0330), mRNA
3337	16383	29282	4.12	7.0E-76	A056490.1	NT	Homo sapiens dihydropyrimidine dehydrogenase (E3 component of pyruvate dehydrogenase complex, 2-oxo-glutarate complex, branched chain keto acid dehydrogenase complex) (DLD) mRNA
3343	16389	29289	11.03	7.0E-76	4505052	NT	Homo sapiens cAMP-specific phosphodiesterase 8A (PDE8A) mRNA, partial cds
3384	18427	29332	1.08	7.0E-76	4757915	NT	Homo sapiens lymphocyte antigen 75 (LY75) mRNA, and translated products
4478	17439	30348	6.17	7.0E-76	4507184	NT	Homo sapiens core-binding factor, runt domain, alpha subunit 2; translocated to, 1; cyclin D-related (CBFA2T1) mRNA
							Homo sapiens espiaplatin reductase (7-8-dihydropteridin:NADP+ oxidoreductase) (SPR) mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4478	17489	30349	6.17	7.0E-76	4507184	NT	Homo sapiens sepletein reductase (7,8-dihydrobiopterin:NADP+ oxidoreductase) (SPR) mRNA
1262	14286		6.18	6.0E-76	BE396253.1	EST_HUMAN	601312019F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3658757 5'
11897	23987	37435	2.88	6.0E-76	BE273201.1	EST_HUMAN	801142253F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3506029 5'
1958	14977	27959	4.81	5.0E-76	D63874.1	NT	Human mRNA for HMG-1, complete cds
1958	14977	27960	4.81	5.0E-76	D63874.1	NT	Human mRNA for HMG-1, complete cds
1958	14977	27961	4.81	5.0E-76	D63874.1	NT	Human mRNA for HMG-1, complete cds
3252	16300	29205	0.65	4.0E-76	BE814086.1	EST_HUMAN	QV3-BN0047-270700-283-g06 BN0047 Homo sapiens cDNA
5452	18533	31259	1.38	4.0E-76	BE783412.1	EST_HUMAN	801471729F1 NIH_MGC_87 Homo sapiens cDNA clone IMAGE:3874470 5'
10527	23413	38826	5.86	4.0E-76	D81625.1	EST_HUMAN	HUM178G01B Human fetal brain (TFujiiware) Homo sapiens cDNA clone GEN-178G01 5'
10527	23413	38827	5.86	4.0E-76	D81625.1	EST_HUMAN	HUM178G01B Human fetal brain (TFujiiware) Homo sapiens cDNA clone GEN-178G01 5'
653	13714	26824	2.1	3.0E-76	BF516262.1	EST_HUMAN	UI-HBW1-amz-b-04-0-UI.s1 NCL_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3083862 3'
1622	14652	27615	4	3.0E-76	BF516262.1	EST_HUMAN	UI-HBW1-amz-b-04-0-UI.s1 NCL_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3083862 3'
1622	14652	27616	4	3.0E-76	BF516262.1	EST_HUMAN	Homo sapiens eukaryotic translation elongation factor 1 beta 2 (EEF1B2) mRNA
3490	16529	29428	6.96	3.0E-76	BF375689.1	EST_HUMAN	Homo sapiens eukaryotic translation elongation factor 1 beta 2 (EEF1B2) mRNA
3490	16529	29428	6.96	3.0E-76	BF375689.1	EST_HUMAN	Homo sapiens eukaryotic translation elongation factor 1 beta 2 (EEF1B2) mRNA
4185	17188	30059	1.14	3.0E-76	BE348693.1	EST_HUMAN	RC5-ST0300-180100-033-A03 ST0300 Homo sapiens cDNA
5418	18417	38563	2.05	3.0E-76	Z41314.1	EST_HUMAN	RC5-ST0300-180100-033-A03 ST0300 Homo sapiens cDNA
6936	16002	32121	1.04	3.0E-76	AA160811.1	EST_HUMAN	h187112.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3161823 3' similar to TR:Q94886 O94886
6219	19274	32428	0.6	3.0E-76	AW027705.1	EST_HUMAN	KIAA0792 PROTEIN. ;
6628	19668	32853	9.03	3.0E-76	AF286588.1	EST_HUMAN	HSCZQD042 normalized Infant brain cDNA Homo sapiens cDNA clone c-zqd04 3'
8728	21659	35006	1	3.0E-76	N42871.1	EST_HUMAN	zo73c07.r1 Stratagene pancreas (#637208) Homo sapiens cDNA clone IMAGE:592524 5' similar to gb:L32979 MIXED LINEAGE KINASE 1 (HUMAN);
10238	23129	36532	3.25	3.0E-76	AW295353.1	EST_HUMAN	w75c05.x1 Soares_thymus_NHFFth Homo sapiens cDNA clone IMAGE:2535369 3'
10281	23151	36559	0.81	3.0E-76	AA442309.1	EST_HUMAN	Homo sapiens angiotensin binding protein 1 mRNA, complete cds
10281	23151	36560	0.81	3.0E-76	AA442309.1	EST_HUMAN	y20g10.t1 Soares_melanocyte_2N5HM Homo sapiens cDNA clone IMAGE:271842 5'
12237	25767	31573	2.3	3.0E-76	AW967894.1	EST_HUMAN	xa49h01.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2773009 3'
12333	25953	31360	2.7	3.0E-76	AW956455.1	EST_HUMAN	z54d11.t1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757461 5'
301	13394	26313	1.03	2.0E-76	D84295.1	NT	EST380059 MAGe resequences, MAGD Homo sapiens cDNA
362	13449	26360	2.95	2.0E-76	D84295.1	NT	EST368525 MAGe resequences, MAGD Homo sapiens cDNA
362	13449	26361	2.95	2.0E-76	D84295.1	NT	Human mRNA for possible protein TPRDII, complete cds
483	13554		1.24	2.0E-76	4557662	NT	Human mRNA for possible protein TPRDII, complete cds
611	13676	28578	0.95	2.0E-76	4503944	NT	Homo sapiens immunoglobulin (CD79A) binding protein 1 (IGBP1) mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Tcp Hit Descriptor
1559	14590	27550	1.5	2.0E-76	4504028	NT	Homo sapiens GM2 ganglioside activator protein (GM2A) mRNA
1559	14590	27551	1.5	2.0E-76	4504028	NT	Homo sapiens GM2 ganglioside activator protein (GM2A) mRNA
1943	14684	27843	1.08	2.0E-76	AA253954.1	EST_HUMAN	zs00h11.s1 Stragene schizo brain S11 Homo sapiens cDNA clone IMAGE:701925 3'
2887	15941	28843	4.42	2.0E-76	P23268	SWISSPROT	OLFACTORY RECEPTOR-LIKE PROTEIN F5
3340	16386	29286	2.19	2.0E-76	AA445992.1	EST_HUMAN	zw64e02.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:780986 3' similar to SW:ITB5_HUMAN
3340	16386	29287	2.19	2.0E-76	AA445992.1	EST_HUMAN	P18084 INTEGRIN BETA-5 SUBUNIT PRECURSOR.1
3535	16573	29477	1.03	2.0E-76	AB21149.1	EST_HUMAN	ec83b02.y6 Stragene lung (#937210) Homo sapiens cDNA clone IMAGE:869163 5' similar to TR:O14591
4612	17620	30483	0.9	2.0E-76	11645921	NT	O14591 SIMILARITY TO P22059 ;
4647	17653	30519	1.03	2.0E-76	AL163283.2	NT	Homo sapiens melanoma differentiation associated protein-5 (MDA5), mRNA
5062	18059	30911	8.04	2.0E-76	AW879518.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C083
5492	18572	31624	1.54	2.0E-76	AF127845.1	NT	QV3-OT0028-220300-132-b11 OT0028 Homo sapiens cDNA
5646	18720	31624	0.49	2.0E-76	9966346	NT	Gorilla gorilla olfactory receptor (GGO18) gene, partial cds
5813	18885	31995	4.85	2.0E-76	AB028004.1	NT	Homo sapiens chromosome 12 open reading frame 4 (C12ORF4), mRNA
7812	20741	34045	0.82	2.0E-76	11421326	NT	Homo sapiens mRNA for KIAA1081 protein, partial cds
7838	20769	34069	0.84	2.0E-76	11428608	NT	Homo sapiens KIAA0783 gene product (KIAA0783), mRNA
8112	21024	34350	1.77	2.0E-76	11427410	NT	Homo sapiens A kinase (PRKA) anchor protein 10 (AKAP10), mRNA
10774	23660	37089	2.86	2.0E-76	11437211	NT	Homo sapiens TPCRB6 protein (HSTPCR86P), mRNA
11358	24276	37718	3	2.0E-76	7540807	NT	Homo sapiens similar to ribosomal protein S26 (H. sapiens) (LOC83160), mRNA
4400	17413	30279	2.02	1.0E-76	D93874.1	NT	Homo sapiens HIRA interacting protein 4 (dnal-like) (HIRIP4), mRNA
4400	17413	30280	2.02	1.0E-76	D93874.1	NT	Human mRNA for HMG-1, complete cds
5633	18708	31609	6.05	1.0E-76	BE796537.1	EST_HUMAN	Human mRNA for HMG-1, complete cds
6482	19536		0.82	1.0E-76	AA333207.1	EST_HUMAN	601589896F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944302 5'
7302	18471		0.46	1.0E-76	7706540	NT	EST37301 Embryo, 8 week 1 Homo sapiens cDNA 5' end
7253	20162	33401	5.09	9.0E-77	BE689525.1	EST_HUMAN	Homo sapiens helicase-like protein NHL (LOC31750), mRNA
199	13287	28212	1.05	8.0E-77	R63144.1	EST_HUMAN	601512435F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913737 5'
4642	17848	30513	1.67	8.0E-77	BF205181.1	EST_HUMAN	yp11h02.r1 Soares breast 3N9HBst Homo sapiens cDNA clone IMAGE:187165 5' similar to
5638	18714	31615	2.98	8.0E-77		NT	SP-ANKB_HUMAN C01484 ANKYRIN, BRAIN VARIANT 1 ;
11824	24744	38235	1.9	8.0E-77		EST_HUMAN	601899920F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4108503 5'
11824	24744	38236	1.9	8.0E-77	AA019770.1	EST_HUMAN	Homo sapiens proteasome (prosome, macropain) 26S subunit, non-ATPase, 7 (Mac34 homolog) (PSMD7) mRNA
5638	18714	31615	2.98	8.0E-77	4506230	NT	
11824	24744	38235	1.9	8.0E-77	AA019770.1	EST_HUMAN	ze62e02.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:363578 5'
11824	24744	38236	1.9	8.0E-77	AA019770.1	EST_HUMAN	ze62e02.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:363578 5'

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
12943	25509	31772	25.24	8.0E-77	R00245.1	EST_HUMAN	ye9f04.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:123007 3' similar to contains
1944	14065	27944	2.21	7.0E-77	AA625755.1	EST_HUMAN	MER10 repetitive element;
2435	15439	28439	3.76	7.0E-77	4505044	NT	z91g01.st Soares testis_NHT Homo sapiens cDNA clone IMAGE:749392 3'
2435	15439	28440	3.76	7.0E-77	4505944	NT	Homo sapiens polymerase (RNA) II (DNA directed) polypeptide E (25KD) (POLR2E) mRNA
282	13378	26291	4.07	6.0E-77	4504600	NT	Homo sapiens polymerase (RNA) II (DNA directed) polypeptide E (25KD) (POLR2E) mRNA
1169	14210	27148	1.12	6.0E-77	AW657753.1	EST_HUMAN	Homo sapiens interferon (alpha, beta and omega) receptor 2 (IFNAR2) mRNA
1565	14598	27556	1.4	6.0E-77	AI204068.1	EST_HUMAN	EST359823 MAGE resequences, MAGE Homo sapiens cDNA
155	13255	26173	3.56	5.0E-77	AF154830.1	NT	qe7h12.x1 Soares fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1745063 3'
155	13255	26174	3.56	5.0E-77	AF154830.1	NT	Homo sapiens carbamyl phosphate synthetase 1 mRNA, complete cds
1264	14298	27244	1.77	5.0E-77	AF041015.1	NT	Homo sapiens carbamyl phosphate synthetase 1 mRNA, complete cds
1387	14418	27373	1.19	5.0E-77	4557250	NT	7 Homo sapiens glucokinase (GCK) gene, exon 2
2734	15727	28724	1.16	5.0E-77	AF162666.1	NT	Homo sapiens disintegrin and metalloprotease domain 10 (ADAM10) mRNA
2814	15803	28801	0.94	5.0E-77	4503160	NT	Homo sapiens tau-like kinase 1 (TLK1) mRNA, complete cds
3583	16820	29524	1.08	5.0E-77	8394518	NT	Homo sapiens cullin 1 (CUL1) mRNA
5050	18047	30801	2.53	5.0E-77	AL043953.1	EST_HUMAN	Homo sapiens ubiquitin specific protease 18 (USP18), mRNA
7091	20297	33587	0.67	5.0E-77	M13975.1	NT	DKFZp344G1728_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp344G1728 5'
7711	20843	33940	0.44	5.0E-77	X98296.1	NT	Homo sapiens protein kinase C beta-II type (PRKCB1) mRNA, complete cds
8033	20843	33940	0.49	5.0E-77	X98296.1	NT	H. sapiens mRNA for ubiquitin hydrolase
8940	21870	35228	1.98	5.0E-77	11428849	NT	H. sapiens mRNA for ubiquitin hydrolase
8940	21870	35229	1.90	5.0E-77	11428849	NT	Homo sapiens 3-hydroxyisobutyryl-Coenzyme A hydrolase (HIBCH), mRNA
10098	22847	36335	3.66	5.0E-77	11421928	NT	Homo sapiens sorting nexin 5 (SNX5), mRNA
10098	22847	36336	3.66	5.0E-77	11421928	NT	Homo sapiens sorting nexin 5 (SNX5), mRNA
10969	23853	37279	0.7	5.0E-77	AB002297.1	NT	Human mRNA for KIAA0299 gene, partial cds
10969	23853	37280	0.7	5.0E-77	AB002297.1	NT	Human mRNA for KIAA0299 gene, partial cds
12212	25046	38549	1.83	5.0E-77	AF111168.2	NT	Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA
1988	15006	27894	1.5	3.0E-77	5730038	NT	Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA
1988	15006	27895	1.5	3.0E-77	5730038	NT	Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA
10780	23666	37094	0.6	3.0E-77	H65167.1	EST_HUMAN	y084g01.11 Weizmann Olfactory Epithelium Homo sapiens cDNA clone IMAGE:238608 5' similar to
10780	23666	37095	0.6	3.0E-77	H65167.1	EST_HUMAN	SP:S17447 S17447 PROBABLE LIGAND-BINDING PROTEIN RY2G5 - ;
11310	24229	37675	3.65	3.0E-77	BF359977.1	EST_HUMAN	SP:S17447 S17447 PROBABLE LIGAND-BINDING PROTEIN RY2G5 - ;
1381	14413	27367	1.2	2.0E-77	AV764617.1	EST_HUMAN	PM3-MT0078-080800-005-g03 MT0078 Homo sapiens cDNA
							AV764617 MDS Homo sapiens cDNA clone MDSBTF10 5'



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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1452	14494	27445	5.01	2.0E-77	AW897712.1	EST_HUMAN	RC3-BN0053-170200-011-h01 BN0053 Homo sapiens cDNA
2103	15117	28121	2.01	2.0E-77	L41625.1	NT	Homo sapiens CYP17 gene, 5' end
2115	15128	28133	2.84	2.0E-77	7706315	NT	Homo sapiens CGI-79 protein (LOC51634), mRNA
2635	15928	28627	2.42	2.0E-77	AB037836.1	NT	Homo sapiens mRNA for KIAA1415 protein, partial cds
2635	15928	28628	2.42	2.0E-77	AB037836.1	NT	Homo sapiens mRNA for KIAA1415 protein, partial cds
4116	17139	30012	1.51	2.0E-77	BE044316.1	EST_HUMAN	h04305.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:3040113 3' similar to SW:GAG2_HUMAN P10264 RETROVIRUS-RELATED GAG POLYPROTEIN ;
4881	17890	30745	1.13	2.0E-77	AA653025.1	EST_HUMAN	ns89g12.s1 NCL_CGAP_P12 Homo sapiens cDNA clone IMAGE:1188838 similar to SW:RL29_HUMAN P47914 60S RIBOSOMAL PROTEIN L28. [1] contains element MSR1 repetitive element ;
6180	19237	32384	1.91	2.0E-77	BE298940.1	EST_HUMAN	G01119852F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3029438 5'
6413	19461	32835	1.7	2.0E-77	BE787143.1	EST_HUMAN	G01476802F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3879505 5'
7538	20477	33765	14.83	2.0E-77	A1833003.1	EST_HUMAN	at74e09.x1 Barslead cdon HPLRB7 Homo sapiens cDNA clone IMAGE:2377720 3' similar to TR:Q13311 Q13311 TAX1-BINDING PROTEIN TXBP151. [1] ;
8093	22022	35379	0.87	2.0E-77	A1862707.1	EST_HUMAN	q070d09.x1 NCL_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2017360 3' similar to WP:F29D11.1 CE05765 LOW DENSITY LIPID RECEPTOR-RELATED PROTEIN ;
10058	22874	36365	5.95	2.0E-77	U50321.1	NT	Human protein kinase C substrate 80K-H (PRKCSH) gene, exon 7
10058	22874	36368	5.95	2.0E-77	U50321.1	NT	Human protein kinase C substrate 80K-H (PRKCSH) gene, exon 7
10500	23388	36708	0.53	2.0E-77	BF310349.1	EST_HUMAN	G01895183F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4124541 5'
10500	23388	36709	0.53	2.0E-77	BF310349.1	EST_HUMAN	G01895183F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4124541 5'
40	13102	26059	1.92	1.0E-77	AB033102.1	NT	Homo sapiens mRNA for KIAA1276 protein, partial cds
46	13162	26054	1.92	1.0E-77	AB033102.1	NT	Homo sapiens mRNA for KIAA1276 protein, partial cds
292	13386	26302	2.43	1.0E-77	4502166	NT	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA
292	13386	26303	2.43	1.0E-77	4502166	NT	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA
900	15887	26901	3.14	1.0E-77	4502166	NT	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA
900	15887	26902	3.14	1.0E-77	4502166	NT	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA
2468	16471	28471	1.86	1.0E-77	AB028024.1	NT	Homo sapiens mRNA for KIAA1101 protein, complete cds
3092	16143	29039	3.16	1.0E-77	4503300	NT	Homo sapiens 2,4-dienoyl CoA reductase 1, mitochondrial (DECR1), mRNA
4463	17474	30331	4.05	1.0E-77	7706299	NT	Homo sapiens CGI-60 protein (LOC51628), mRNA
4618	17626	30490	0.7	1.0E-77	4758053	NT	Homo sapiens cAMP responsive element binding protein 1 (CREB1) mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4643	17649	30514	24.64	1.0E-77	AJ228041.1	NT	Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3
4761	17668	30529	1.74	1.0E-77	6552322	NT	Homo sapiens breast cancer 1, early onset (BRCA1), transcript variant BRCA1-exon4, mRNA
4888	17697	30844	1.11	1.0E-77	11418424	NT	Homo sapiens collagen, type XI, alpha 1 (COL12A1), mRNA
6153	19211	32350	1.26	1.0E-77	AF086944.1	NT	Homo sapiens dynactin 1 (DCTN1) gene, exons 27 and 28
6153	19211	32351	1.26	1.0E-77	AF086944.1	NT	Homo sapiens dynactin 1 (DCTN1) gene, exons 27 and 28
6282	19333	32499	1.54	1.0E-77	M23844.1	NT	Human von Willebrand factor gene, exon 20
6718	19754	32960	1.18	1.0E-77	4885182	NT	Homo sapiens diaphanous (Drosophila, homolog) 1 (DIAPH1), mRNA
7406	20106	33339	18.49	1.0E-77	5881412	NT	Homo sapiens elastin (supravalvular aortic stenosis, Williams-Beuren syndrome) (ELN), mRNA
8117	21028	34355	1.17	1.0E-77	11420159	NT	Homo sapiens cullin 1 (CUL1), mRNA
8232	21137	34469	0.62	1.0E-77	X04571.1	NT	Human mRNA for kidney epidermal growth factor (EGF) precursor
11004	23888	37321	1.15	1.0E-77	AB029396.1	NT	Homo sapiens hu-GlcAT-P mRNA for glucuronyltransferase, complete cds
11004	23888	37322	1.15	1.0E-77	AB029396.1	NT	Homo sapiens hu-GlcAT-P mRNA for glucuronyltransferase, complete cds
11517	24427	37885	1.59	1.0E-77	11433426	NT	Homo sapiens meningioma expressed antigen 6 (colled-coil proline-rich) (MGEA6), mRNA
11028	23912	37354	3.18	9.0E-78	AW75302.1	EST_HUMAN	RC3-CT0254-280999-011-1-305 CT0254 Homo sapiens cDNA
6716	19752	32957	2.04	8.0E-78	AW947061.1	EST_HUMAN	RC2-ET0023-080500-012-e05 ET0023 Homo sapiens cDNA
6716	19752	32958	2.04	8.0E-78	AW947061.1	EST_HUMAN	RC2-ET0023-080500-012-e05 ET0023 Homo sapiens cDNA
88	13201	26114	1.79	6.0E-78	AU118789.1	EST_HUMAN	AU118789 HEMBA1 Homo sapiens cDNA clone HEMBA1004354 5'
88	13201	26115	1.79	6.0E-78	AU118789.1	EST_HUMAN	AU118789 HEMBA1 Homo sapiens cDNA clone HEMBA1004354 5'
8841	18873		2.66	6.0E-78	11432710	NT	Homo sapiens GDNF family receptor alpha 1 (GFRA1), mRNA
233	13331	28245	1.91	5.0E-78	11422486	NT	Homo sapiens hypothetical protein FLJ11316 (FLJ11316), mRNA
2597	15595	28590	4.66	5.0E-78	AW673424.1	EST_HUMAN	ba54h03.y0 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2900405 5' similar to WP:Y48B6A.6
3444	16485	28393	4.49	6.0E-78	M55586.1	NT	OE22121 ; Human collagenase type IV (CLG4) gene, exon 8
5597	18673	31651	2.28	5.0E-78	AF038536.1	NT	Homo sapiens Best's macular dystrophy related protein mRNA, partial cds
5767	18840	31941	12.03	5.0E-78	11416885	NT	Homo sapiens transforming growth factor, beta-induced, 68kD (TGFB1), mRNA
7615	20454	33740	2.46	5.0E-78	AW953120.1	EST_HUMAN	EST365180 IMAGE resequences, MAGB Homo sapiens cDNA
8629	22555	35925	7.07	5.0E-78	U60889.1	NT	Human lysosomal alpha-mannosidase (manB) gene, exon 7
9630	22556	35926	3.47	5.0E-78	BE960836.1	EST_HUMAN	601648061F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:3931887 5'
1184	14205	27143	1.57	4.0E-78	AL043314.2	EST_HUMAN	DKFZp434N0323_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434N0323 5'
1539	14509	27528	2	4.0E-78	AL355841.1	NT	Novel human gene mapping to chromosome 22
1876	14705	27687	1.06	4.0E-78	AB85094.1	EST_HUMAN	wf97b12.x1 NOI_CGAP_Kid1 Homo sapiens cDNA clone IMAGE:2495615 3' similar to SW:WAP_PIG
2339	15347	28351	2.49	4.0E-78	AF107405.1	NT	O46855 WHEY ACIDIC PROTEIN PRECURSOR ; Homo sapiens pre-mRNA splicing factor (SFRS3) mRNA, complete cds
4428	17439	30298	2.2	4.0E-78	7656876	NT	Homo sapiens synovial (LOC30816), mRNA



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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5978	19041	32163	1.03	4.0E-78	11420732	NT	Homo sapiens SFRS protein kinase 2 (SRPK2), mRNA
8414	19462	32636	0.57	4.0E-78	7662109	NT	Homo sapiens KIAA0428 gene product (KIAA0428), mRNA
8414	19462	32637	0.57	4.0E-78	7662109	NT	Homo sapiens KIAA0428 gene product (KIAA0428), mRNA
6855	19887	33101	0.74	4.0E-78	4506736	NT	Homo sapiens ribosomal protein S6 kinase, 70kD, polypeptide 1 (RPS6KB1) mRNA
7812	20836	34139	0.59	4.0E-78	4506736	NT	Homo sapiens ribosomal protein S6 kinase, 70kD, polypeptide 1 (RPS6KB1) mRNA
8412	22340	35704	1.32	4.0E-78	AF012872.1	NT	Homo sapiens phosphatidylinositol 4-kinase 230 (p4K230) mRNA, complete cds
9412	22340	35705	1.32	4.0E-78	AF012872.1	NT	Homo sapiens phosphatidylinositol 4-kinase 230 (p4K230) mRNA, complete cds
9907	22895	36282	0.71	4.0E-78	11417251	NT	Homo sapiens X-ray repair complementing defective repair in Chinese hamster cells 4 (XRCC4), mRNA
10925	23810	37237	1.74	4.0E-78	11560151	NT	Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA
10925	23810	37238	1.74	4.0E-78	11560151	NT	Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA
11862	24702	38193	2.33	4.0E-78	AF168148.1	NT	Homo sapiens s-CaBP1 (CaBP1) mRNA, complete cds
11991	24833	38331	2.65	4.0E-78	X05844.1	NT	Human transforming growth factor-beta precursor gene exons 4-5 (and joined mature peptide)
12839	25452	31776	3.27	4.0E-78	AB011396.1	NT	Homo sapiens gene for AF-6, complete cds
171	13272	26186	1.45	3.0E-78	AF095901.1	NT	Homo sapiens eRF1 gene, complete cds
171	13272	26187	1.45	3.0E-78	AF095901.1	NT	Homo sapiens eRF1 gene, complete cds
2323	15331	28334	1.03	3.0E-78	4502142	NT	Homo sapiens apoptosis inhibitor 3 (API3) mRNA
3828	16858		1.25	3.0E-78	AU140604.1	EST_HUMAN	AU140604 PLACE3 Homo sapiens cDNA clone PLACE3000373 5'
3886	16916	29793	0.9	3.0E-78	4507334	NT	Homo sapiens synaptotagmin 1 (SYNJ1), mRNA
4196	18915	29793	0.71	3.0E-78	4507334	NT	Homo sapiens synaptotagmin 1 (SYNJ1), mRNA
10778	23664		5.84	3.0E-78	BE144758.1	EST_HUMAN	Q10-HIT0180-041099-065-c07 HT0180 Homo sapiens cDNA
11419	24335	37784	1.97	3.0E-78	BE156318.1	EST_HUMAN	Q10-HIT0367-150200-114-g09 HT0367 Homo sapiens cDNA
3166	16216		2.84	2.0E-78	U04489.1	NT	Homo sapiens type IV collagen alpha 5 chain (COL4A5) gene, exon 20
4100	17125		1.78	2.0E-78	AA311872.1	EST_HUMAN	EST182583 Jurkat T-cells VI Homo sapiens cDNA 5' end
7880	20806	34110	1.2	2.0E-78	AW402306.1	EST_HUMAN	U1-HF-BK0-aag-g-10-0-U1r1 NIH_MGC_36 Homo sapiens cDNA clone IMAGE:3054139 5'
7880	20806	34111	1.2	2.0E-78	AW402306.1	EST_HUMAN	U1-HF-BK0-aag-g-10-0-U1r1 NIH_MGC_36 Homo sapiens cDNA clone IMAGE:3054139 5'
8194	21101	34431	3.38	2.0E-78	BF689900.1	EST_HUMAN	602185529F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4288599 5'
8618	21549	34880	2.95	2.0E-78	AV714177.1	EST_HUMAN	AV714177 DCB Homo sapiens cDNA clone DCBBAW.F09 5'
8020	21949	35304	2.16	2.0E-78	AI557509.1	EST_HUMAN	P12.1_16 B07.r tumor2 Homo sapiens cDNA 3'
8020	21949	35305	2.16	2.0E-78	AI557509.1	EST_HUMAN	P12.1_16 B07.r tumor2 Homo sapiens cDNA 3'
							q150h05.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:1659961 3' similar to WP.R80.1
11519	24429	37887	3.82	2.0E-78	AI197837.1	EST_HUMAN	CE06325 PROTEIN KINASE ;
11564	24473	37940	2.05	2.0E-78	N66951.1	EST_HUMAN	za48f12.s1 Soares fetal liver spleen.1NLS Homo sapiens cDNA clone IMAGE:295823 3'
5488	18568	31414	3.22	1.0E-78	11417304	NT	Homo sapiens GAP-like protein (LOC51306), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
7288	19457	31327	5.45	1.0E-78	AV648699.1	EST_HUMAN	AV648699 GLC Homo sapiens cDNA clone GLCBMC01 3'
8737	21667		1.97	1.0E-78	U52373.1	NT	Human serine/threonine kinase MNB (mnb) mRNA, complete cds
12480	25224	31868	1.06	1.0E-78	11435903	NT	Homo sapiens similar to lymphocyte activation-associated protein (H. sapiens) (LOC63140), mRNA
4811	17812	30678	3.97	9.0E-79	11525891	NT	Homo sapiens peptide YY (PYY), mRNA
5618	18694	31590	14.17	9.0E-79	AB028070.1	NT	Homo sapiens mRNA for activator of S phase Kinase, complete cds
6587	19838	32818	2.33	9.0E-79	6454145	NT	Homo sapiens ubiquitin-conjugating enzyme E2/E 3 (homologous to yeast UBC4/5) (UBE2E3) mRNA
6905	19935	33152	1.07	9.0E-79	11430822	NT	Homo sapiens hypothetical protein FLJ11294 (FLJ11294), mRNA
7738	26675		1.02	9.0E-79	11424427	NT	Homo sapiens hypothetical protein FLJ20345 (FLJ20345), mRNA
8008	20925	34242	1.07	9.0E-79	11421735	NT	Homo sapiens cAMP response element-binding protein CRE-BPa (H. GS165L15.1), mRNA
8008	20925	34243	1.07	9.0E-79	11421735	NT	Homo sapiens cAMP response element-binding protein CRE-BPa (H. GS165L15.1), mRNA
8061	20974	34290	0.61	9.0E-79	D30658.1	NT	Human T-cell mRNA for glycyl tRNA synthetase, complete cds
8920	21850	35204	0.53	9.0E-79	11417260	NT	Homo sapiens threonyl-tRNA synthetase (TARS), mRNA
8920	21850	35205	0.53	9.0E-79	11417260	NT	Homo sapiens threonyl-tRNA synthetase (TARS), mRNA
9815	22541	35911	6.45	9.0E-79	J02853.1	NT	Homo sapiens casein kinase II alpha subunit mRNA, complete cds
9815	22541	35912	6.45	9.0E-79	J02853.1	NT	Homo sapiens casein kinase II alpha subunit mRNA, complete cds
10851	23737	37160	0.73	9.0E-79	11438843	NT	Homo sapiens hypothetical protein FLJ20535 (FLJ20535), mRNA
10801	23786	37212	1.11	9.0E-79	AF062346.1	NT	Homo sapiens zinc finger protein 216 splice variant 1 (ZNF216) mRNA, complete cds
10901	23786	37213	1.11	9.0E-79	AF062346.1	NT	Homo sapiens zinc finger protein 216 splice variant 1 (ZNF216) mRNA, complete cds
11945	24789	38288	3.28	9.0E-79	11423827	NT	Homo sapiens suppressor of white apicotic homolog 2 (SWAP2), mRNA
11945	24789	38287	3.28	9.0E-79	11423827	NT	Homo sapiens suppressor of white apicotic homolog 2 (SWAP2), mRNA
13023	25566	31760	2.04	9.0E-79	11417677	NT	Homo sapiens gamma-glutamyltransferase 1 (GGT1), mRNA
3805	16836	29722	0.6	8.0E-79	AL163210.2	NT	Homo sapiens chromosome 21 segment HS21C010
4609	17617	30478	0.97	8.0E-79	D28476.1	NT	Human mRNA for KIAA0045 gene, complete cds
4609	17617	30479	0.97	8.0E-79	D28476.1	NT	Human mRNA for KIAA0045 gene, complete cds
3297	16344	29248	3.47	7.0E-79	BE619848.1	EST_HUMAN	601472766T1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE3875657 3'
9202	22130		0.6	6.0E-79	AL163246.2	NT	Homo sapiens chromosome 21 segment HS21C046
12256	25076		3.13	6.0E-79	AA699829.1	EST_HUMAN	294e04.s1 Soares_fetal_liver_spleen_1NFSL_S1 Homo sapiens cDNA clone IMAGE462558 3' similar to
11927	24772	38270	2.77	5.0E-79	AL163282.2	NT	TR.Q15408 Q15408 NEUTRAL PROTEINASE LARGE SUBUNIT ;
3219	18287		0.99	4.0E-79	8922326	NT	Homo sapiens chromosome 21 segment HS21C082
333	13423	26339	2.27	3.0E-79	AF114488.1	NT	Homo sapiens hypothetical protein FLJ10283 (FLJ10283), mRNA
1005	14054	26998	3.03	3.0E-79	AF232708.1	NT	Homo sapiens intercalin short isoform (ITSN) mRNA, complete cds Homo sapiens cell-line taA201a chloride ion current inducer protein (Cin) gene, complete cds

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3146	16196	29089	1.95	3.0E-79	U09410.1	NT	Human zinc finger protein ZNF131 mRNA, partial cds
5289	18255	31104	0.7	3.0E-79	AF114488.1	NT	Homo sapiens interectin short isoform (ITSN) mRNA, complete cds
5289	18255	31105	0.7	3.0E-79	AF114488.1	NT	Homo sapiens interectin short isoform (ITSN) mRNA, complete cds
5548	18624	31489	6.86	3.0E-79	AF110322.1	NT	Homo sapiens MSTP018 (MST018) mRNA, complete cds
5925	18992	32111	1.81	3.0E-79	AB020699.1	NT	Homo sapiens mRNA for KIAA0892 protein, partial cds
5954	19021	32141	0.84	3.0E-79	BE789470.1	EST_HUMAN	601482143F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3884554 5'
5954	19021	32142	0.84	3.0E-79	BE789470.1	EST_HUMAN	601482143F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3884554 5'
6977	19042	32164	3.79	3.0E-79	11426770	NT	Homo sapiens netrin 1 (NTN1), mRNA
5977	19042	32165	3.79	3.0E-79	11426770	NT	Homo sapiens netrin 1 (NTN1), mRNA
7049	20076	33308	0.83	3.0E-79	BE258983.1	EST_HUMAN	60112055F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3352885 5'
7414	20113	33347	4.55	3.0E-79	AB014520.1	NT	Homo sapiens mRNA for KIAA0620 protein, partial cds
7414	20113	33348	4.55	3.0E-79	AB014520.1	NT	Homo sapiens mRNA for KIAA0620 protein, partial cds
8370	21274	34607	0.47	3.0E-79	6912455	NT	Homo sapiens quinine nucleotide exchange factor for Rap1 (KIAA0277), mRNA
8742	21672	35015	0.89	3.0E-79	AF249273.1	NT	Homo sapiens Bcl-2-associated transcription factor short form mRNA, complete cds
10834	23720	37694	0.71	3.0E-79	AV698115.1	EST_HUMAN	AV698115 GK C Homo sapiens cDNA clone GKCAHE11 5'
11295	24215	37694	1.9	3.0E-79	AF249273.1	NT	Homo sapiens Bcl-2-associated transcription factor short form mRNA, complete cds
11295	24215	37695	1.9	3.0E-79	AF249273.1	NT	Homo sapiens Bcl-2-associated transcription factor short form mRNA, complete cds
307	13400		0.83	2.0E-79	H63129.1	EST_HUMAN	yr48103.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:208541 3'
657	13719	26530	2.39	2.0E-79	BE379926.1	EST_HUMAN	601159415F2 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:351107 5'
958	14006	26952	1.45	2.0E-79	4767841	NT	Homo sapiens BCL2-like 2 (BCL2L2) mRNA
1081	14105		1.37	2.0E-79	AI523747.1	EST_HUMAN	th18107.x1 NCI_OGAP_Pt28 Homo sapiens cDNA clone IMAGE:2118685 3'
2162	15174	28178	9.07	2.0E-79	4585983	NT	Homo sapiens phosphodiesterase 8A, cGMP-specific, rod, alpha (PDE8A), mRNA
2162	15174	28179	9.07	2.0E-79	4585983	NT	Homo sapiens phosphodiesterase 8A, cGMP-specific, rod, alpha (PDE8A), mRNA
2334	16342	28347	2.37	2.0E-79	AF244138.1	NT	Homo sapiens hepatocellular carcinoma-associated antigen 88 (HCA88) mRNA, complete cds
4262	17278	30147	1.41	2.0E-79	AJ271408.1	NT	Homo sapiens mRNA for Fas-associated factor, FAF1 (Faf1 gene)
4801	17802	30689	0.68	2.0E-79	AL163206.2	NT	Homo sapiens chromosome 21 segment HS21C006
							EST182928 Jurkat T-cells VI Homo sapiens cDNA 5' end similar to C. elegans hypothetical protein, ccsmid B0303.15
5868	18939		1.21	2.0E-79	AA312223.1	EST_HUMAN	Homo sapiens X transporter protein 3 (XT3), mRNA
5928	18995	32114	0.76	2.0E-79	11181769	NT	Homo sapiens mRNA for KIAA0830 protein, partial cds
6491	19535	32713	1.05	2.0E-79	AB020637.1	NT	Homo sapiens mRNA for KIAA0830 protein, partial cds
							Homo sapiens membrane-associated calcium-independent phospholipase A2 gamma mRNA, complete cds
7297	18466	31336	2.11	2.0E-79	AF263613.1	NT	Homo sapiens Rho GTPase activating protein 5 (ARHGAP5), transcript variant 4, mRNA
7530	20469	33757	1.72	2.0E-79	7382479	NT	Homo sapiens Rho GTPase activating protein 5 (ARHGAP5), transcript variant 4, mRNA
7530	20469	33758	1.72	2.0E-79	7382479	NT	Homo sapiens Rho GTPase activating protein 5 (ARHGAP5), transcript variant 4, mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8979	21610	34951	1.05	2.0E-79	4506442	NT	Homo sapiens retinoblastoma-like 1 (p107) (RBL-1) mRNA
9082	22011	35368	2.37	2.0E-79	11427428	NT	Homo sapiens hypothetical protein FLJ11006 (FLJ11006), mRNA
9325	22263	35617	0.74	2.0E-79	8923248	NT	Homo sapiens hypothetical protein FLJ20275 (FLJ20275), mRNA
9325	22253	35618	0.74	2.0E-79	8923248	NT	Homo sapiens hypothetical protein FLJ20275 (FLJ20275), mRNA
9556	22483	35843	0.85	2.0E-79	11432184	NT	Homo sapiens similar to ATPase, H <sup>+</sup> transporting, lysosomal (vacuolar proton pump) membrane sector associated protein M8-9 (H. sapiens) (LOC63931), mRNA
10594	23480	36907	1.72	2.0E-79	S72869.1	NT	H4(D10S170)=putative cytoskeletal protein [human, thyroid, mRNA, 3011 nt]
10594	23480	36908	1.72	2.0E-79	S72869.1	NT	H4(D10S170)=putative cytoskeletal protein [human, thyroid, mRNA, 3011 nt]
11470	24383	37830	5.85	2.0E-79	BE084386.1	EST_HUMAN	RC4-BT0310-110300-015-f10 BT0310 Homo sapiens cDNA
11470	24383	37831	5.85	2.0E-79	BE084386.1	EST_HUMAN	RC4-BT0310-110300-015-f10 BT0310 Homo sapiens cDNA
12284	18432	31354	4.67	2.0E-79	7692367	NT	Homo sapiens KIAA0879 protein (KIAA0879), mRNA
12372	25155	31859	4.94	2.0E-79	AB020640.1	NT	Homo sapiens mRNA for KIAA0833 protein, partial cds
12578	25279	31839	1.86	2.0E-79	11418322	NT	Homo sapiens cadherin EGF LAG seven-pass G-type receptor 1 (CELSR1), mRNA
6870	25656		2.88	1.0E-79	BF363071.1	EST_HUMAN	MR0-NN0087-260600-017-b10 NN0087 Homo sapiens cDNA
6991	20018	33250	0.51	1.0E-79	AB183480.1	EST_HUMAN	Y37408.x1 NCI CGAP_U12 Homo sapiens cDNA clone IMAGE:2281286 3' similar to TR:Q28623 Q28623 TEKTIN C1.1
6991	20018	33251	0.51	1.0E-79	AB183480.1	EST_HUMAN	Y37408.x1 NCI CGAP_U12 Homo sapiens cDNA clone IMAGE:2281286 3' similar to TR:Q28623 Q28623 TEKTIN C1.1
8820	21750	36096	0.92	1.0E-79	BE394211.1	EST_HUMAN	QV2-HT0540-120900-358-g05 HT0540 Homo sapiens cDNA
12048	24889	36393	1.84	1.0E-79	BF087405.1	EST_HUMAN	QV2-HT0540-120900-358-g05 HT0540 Homo sapiens cDNA
3189	16238	29132	2.58	9.0E-80	AA725848.1	EST_HUMAN	al23e05.s1 Soares_testis_NHT Homo sapiens cDNA clone 1343648 3'
3189	16238	29133	2.58	9.0E-80	AA725848.1	EST_HUMAN	al23e05.s1 Soares_testis_NHT Homo sapiens cDNA clone 1343648 3'
10518	23403	36815	1.18	9.0E-80	BE798603.1	EST_HUMAN	601581652F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3938061 5'
11722	24624	38104	9.08	9.0E-80	11433924	NT	Homo sapiens solute carrier family 7 (cationic amino acid transporter, y <sup>+</sup> system), member 8 (SLC7A8), mRNA
11722	24624	38105	9.08	9.0E-80	11433924	NT	Homo sapiens solute carrier family 7 (cationic amino acid transporter, y <sup>+</sup> system), member 8 (SLC7A8), mRNA
3664	16998		1.68	8.0E-80	U94387.1	NT	Homo sapiens Y chromosome spermatogenesis candidate protein (RBM) pseudogene mRNA, partial cds
8048	20961	34276	2.7	8.0E-80	11422647	NT	Homo sapiens KIAA0724 gene product (KIAA0724), mRNA
8048	20961	34277	2.7	8.0E-80	11422647	NT	Homo sapiens KIAA0724 gene product (KIAA0724), mRNA
9338	22843	36231	1.41	8.0E-80	6005921	NT	Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA
9338	22843	36232	1.41	8.0E-80	6005921	NT	Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA
7313	18431	31304	0.56	7.0E-80	AF127882.1	NT	Caillixh/jacchus olfactory receptor (CJA80) gene, partial cds

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
925	13977	26923	1.89	6.0E-80	AI422197.1	EST_HUMAN	tf58d02.x1 NCI_CGAP_Bn23 Homo sapiens cDNA clone IMAGE:2103459 3' similar to SW:NUEM_HUMAN Q16785 NADH-UBIQUINONE OXIDOREDUCTASE 39 KD SUBUNIT PRECURSOR ;
1670	14700	27660	1.42	6.0E-80	U64898.1	NT	Homo sapiens NAD convertase mRNA, complete cds
2318	15326	28326	1.84	6.0E-80	6631094	NT	Homo sapiens minichromosome maintenance deficient (S. cerevisiae) 3 (MCM3), mRNA
2318	15326	28327	1.84	6.0E-80	6631094	NT	Homo sapiens minichromosome maintenance deficient (S. cerevisiae) 3 (MCM3), mRNA
3668	16702	29596	1	6.0E-80	AA349188.1	EST_HUMAN	EST59737 Infant adrenal gland II Homo sapiens cDNA 5' end
4383	17397	30264	1.07	6.0E-80	AB032981.1	NT	Homo sapiens mRNA for KIAA1155 protein, partial cds
4383	17397	30265	1.07	6.0E-80	AB032981.1	NT	Homo sapiens mRNA for KIAA1155 protein, partial cds
6012	18075	32201	3.28	6.0E-80	11421462	NT	Homo sapiens malate dehydrogenase 2, NAD (mitochondrial) (MDH2), mRNA
6312	19382	32532	2.87	6.0E-80	AJ404488.1	NT	Homo sapiens mRNA for dynein heavy chain (DNAH9 gene)
6474	19519	32695	4.13	6.0E-80	11438736	NT	Homo sapiens tubby like protein 3 (TULP3), mRNA
6524	19568	32803	0.95	6.0E-80	7682393	NT	Homo sapiens KIAA0941 protein (KIAA0941), mRNA
6578	19619	32803	0.81	6.0E-80	M18533.1	NT	Homo sapiens dystrophin (DMD) mRNA, complete cds
9383	22311	35672	3.18	6.0E-80	11526464	NT	Homo sapiens G protein-coupled receptor 51 (GPR51), mRNA
9383	22311	35673	3.18	6.0E-80	11526464	NT	Homo sapiens G protein-coupled receptor 51 (GPR51), mRNA
9570	22497	35860	1.78	6.0E-80	AL163301.2	NT	Homo sapiens chromosome 21 segment HS21C101
9597	22812	36202	0.9	6.0E-80	AF161495.1	NT	Homo sapiens HSPC146 mRNA, complete cds
10376	23284	36688	1.93	6.0E-80	U20211.1	NT	Human cone photoreceptor cGMP-phosphodiesterase alpha' subunit gene, exon 21
11380	24296	37742	2.38	6.0E-80	11427368	NT	Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 1 (BIG1), mRNA
11073	24577	38053	33.18	6.0E-80	AF226730.1	NT	Homo sapiens Cy19 mRNA, complete cds
12126	24966	38471	1.44	6.0E-80	U76560.1	NT	Human peroxisome targeting signal 2 receptor (pex7) mRNA, complete cds
12171	25007	38510	1.48	6.0E-80	AF102285.1	NT	Homo sapiens N-acetylglucosamine-phosphate mutase mRNA, complete cds
12382	25781		2.11	6.0E-80	AF240786.1	NT	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds
12563	25273		7.19	6.0E-80	AB028900.1	NT	Homo sapiens GST gene for cerebroside sulfotransferase, exon 1, 2, 3, 4, 5
13017	26894		3.01	6.0E-80	AJ193127.1	NT	Homo sapiens mRNA for sodium-glucose cotransporter (SGLT2 gene)
609	13674	26578	2.04	5.0E-80	4506228	NT	Homo sapiens proteasome (prosome, macropain) 26S subunit, non-ATPase, 3 (PSMD3) mRNA
860	13914	26858	1.19	5.0E-80	AF108830.1	NT	Homo sapiens serine-threonine protein kinase (MNBH) mRNA, complete cds
860	13914	26859	1.19	5.0E-80	AF108830.1	NT	Homo sapiens serine-threonine protein kinase (MNBH) mRNA, complete cds
1217	14256		0.88	6.0E-80	X91647.1	NT	H. sapiens nox1 gene (exon 12)
1475	14506		2.42	5.0E-80	AL163283.2	NT	Homo sapiens chromosome 21 segment HS21C083
2384	19389	28392	1.5	5.0E-80	U99359.1	NT	Human (3)mbt protein homolog mRNA, complete cds
2455	15459	28456	3.26	6.0E-80	AB037855.1	NT	Homo sapiens mRNA for KIAA1434 protein, partial cds

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2842	15831	28827	0.93	5.0E-80	4504292	NT	Homo sapiens H3 histone family, member J (H3F-J) mRNA
4123	17146	30020	1.09	5.0E-80	AB019038.1	NT	Homo sapiens HMT-1 mRNA for beta-1,4 mannosyltransferase, complete cds
4123	17146	30021	1.09	5.0E-80	AB019038.1	NT	Homo sapiens HMT-1 mRNA for beta-1,4 mannosyltransferase, complete cds
5069	18066	30916	1.38	5.0E-80	AL163268.2	NT	Homo sapiens chromosome 21 segment HS21C058
5030	21860	35215	1.06	5.0E-80	9810293	NT	Mus musculus keratin complex 2, gene 6g (Krt2-6g), mRNA
5800	22764	36149	10.58	4.0E-80	F25918.1	EST_HUMAN	HSPD13155 HM3 Homo sapiens cDNA clone s400045F03
232	13330		7.1	3.0E-80	AL163210.2	NT	Homo sapiens chromosome 21 segment HS21C010
4822	17823	30692	1.37	3.0E-80	BF085009.1	EST_HUMAN	PMO-GN0018-040900-002-E03 GN0018 Homo sapiens cDNA
6032	19094	32221	1.95	3.0E-80	AI091675.1	EST_HUMAN	TR:O35790 O35790 PIG-L
1821	14844	27819	5.8	2.0E-80	R35321.1	EST_HUMAN	Y955a08.r1 Soares Infant brain 1N1B Homo sapiens cDNA clone IMAGE:38060 5'
1886	14909	27891	1.03	2.0E-80	AI444821.1	EST_HUMAN	RET4B7 subtracted retina cDNA library Homo sapiens cDNA clone RET4B7
2068	15083	28082	5.14	2.0E-80	AL043118.2	EST_HUMAN	DKFZp434D1323_r1.434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434D1323 5'
6494	19539	32715	0.7	2.0E-80	AI923972.1	EST_HUMAN	wn49c10.x1 NCL CGAP Lu19 Homo sapiens cDNA clone IMAGE:2448786 3'
6494	19539	32716	0.7	2.0E-80	AI923972.1	EST_HUMAN	wn49c10.x1 NCL CGAP Lu19 Homo sapiens cDNA clone IMAGE:2448786 3'
7116	20320	33585	0.78	2.0E-80	AA582952.1	EST_HUMAN	nm80d01.t1 NCL CGAP C09 Homo sapiens cDNA clone IMAGE:1080177 3'
7241	20150	33389	1.59	2.0E-80	11421930	NT	Homo sapiens Golgi transport complex protein (60 kDa) (GTC90), mRNA
7622	20557	33851	0.78	2.0E-80	T75215.1	EST_HUMAN	Yc86112.r1 Soares Infant brain 1N1B Homo sapiens cDNA clone IMAGE:22851 5' similar to
9702	22627	36006	1.03	2.0E-80	AW964270.1	EST_HUMAN	SP-K1CR_XENLA P08802 KERATIN, TYPE I CYTOSKELETAL ENDO B ;
10288	23178	36589	2.5	2.0E-80	AJ007378.1	NT	EST376343 IMAGE resequences, MAGH Homo sapiens cDNA
11304	24223	37671	7.87	2.0E-80	AA393382.1	EST_HUMAN	Homo sapiens GGT gene, exon 6
360	13447		1.72	1.0E-80	AL163303.2	NT	z170f12.r1 Soares testis NHT Homo sapiens cDNA clone IMAGE:727727 5' similar to TR:G191315
828	13881	28818	0.93	1.0E-80	AF231920.1	NT	G191315 ANDROGEN-DEPENDENT EXPRESSED PROTEIN. ;
1968	14888		2.25	1.0E-80	A1732856.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C103
4615	17623	30486	0.9	1.0E-80	7682399	NT	Homo sapiens chromosome 21 unknown mRNA
4615	17623	30487	0.9	1.0E-80	7682399	NT	replicative element ;
5510	18589		5.59	1.0E-80	BE286815.1	EST_HUMAN	Homo sapiens KIAA0951 protein (KIAA0951), mRNA
6200	19266	32403	6.24	1.0E-80	L10347.1	NT	Homo sapiens KIAA0951 protein (KIAA0951), mRNA
6774	19808	33019	2.08	1.0E-80	5174540	NT	601274303F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3618433 5'
7573	20509	33787	1.38	1.0E-80	AJ224172.1	NT	Human pro-alpha1 type II collagen (COL2A1) gene exons 1-54, complete cds
							Homo sapiens malate dehydrogenase 2, NAD (mitochondrial) (MDH2), nuclear gene encoding mitochondrial protein, mRNA
							Homo sapiens mRNA for lipophilin B



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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8007	20924	34240	2.79	1.0E-80	A1948731.1	EST_HUMAN	wq25c05.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2472298 3'
8007	20924	34241	2.79	1.0E-80	A1948731.1	EST_HUMAN	wq25c05.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2472298 3'
9809	21739	35088	0.99	1.0E-80	11421211	NT	Homo sapiens protein tyrosine phosphatase, receptor type, A (PTPRA), mRNA
9258	22186	35542	0.73	1.0E-80	11421211	NT	Homo sapiens protein tyrosine phosphatase, receptor type, A (PTPRA), mRNA
9258	22186	35543	0.73	1.0E-80	11421211	NT	Homo sapiens protein tyrosine phosphatase, receptor type, A (PTPRA), mRNA
9825	22731	36112	1.09	1.0E-80	AF245219.1	NT	Homo sapiens probable mannose binding C-type lectin DC-SIGNR mRNA, complete cds
9825	22731	36113	1.09	1.0E-80	AF245219.1	NT	Homo sapiens probable mannose binding C-type lectin DC-SIGNR mRNA, complete cds
10808	23793	37222	0.85	1.0E-80	D63479.2	NT	Homo sapiens mRNA for KIAA0145 protein, partial cds
11086	24027	37470	3.26	1.0E-80	11641276	NT	Homo sapiens similar to rat myomegalin (LOC64182), mRNA
11086	24027	37471	3.26	1.0E-80	11641276	NT	Homo sapiens similar to rat myomegalin (LOC64182), mRNA
12630	25312	31817	1.85	1.0E-80	11417801	NT	Homo sapiens manningoma (disrupted in balanced translocation) 1 (MN1), mRNA
12845	28457		2.03	1.0E-80	AB011399.1	NT	Homo sapiens gene for AF-8, complete cds
11594	24503	37970	3.71	8.0E-81	BE394525.1	EST_HUMAN	601310531F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3632070 5'
7623	20558	33852	2.87	7.0E-81	AB221115.1	EST_HUMAN	2891c08.x5 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:299918 3'
4494	17504	30369	3.68	6.0E-81	BE256929.1	EST_HUMAN	601111970F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352840 5'
4494	17504	30370	3.68	6.0E-81	BE256929.1	EST_HUMAN	601111970F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352840 5'
5465	18546	31388	1.78	6.0E-81	4501848	NT	Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA
5465	18546	31387	1.78	6.0E-81	4501848	NT	Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA
8029	20945	34261	0.49	6.0E-81	AF038560.1	EST_HUMAN	Homo sapiens chromosome 1p33-p34 beta-1,4-galactosyltransferase mRNA, complete cds
9778	22702	36087	1.63	6.0E-81	AA360017.1	EST_HUMAN	EST69129 Fetal lung II Homo sapiens cDNA 5' end
12763	23394	31800	1.54	6.0E-81	BF679022.1	EST_HUMAN	602153566F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4294601 5'
12763	23394	31807	1.54	6.0E-81	BF679022.1	EST_HUMAN	602153566F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4294601 5'
2231	15241	28249	1.23	5.0E-81	BE268042.1	EST_HUMAN	601123505F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3345480 5'
8983	21913	35269	2.21	5.0E-81	AB007923.1	NT	Homo sapiens mRNA for KIAA0454 protein, partial cds
8983	21913	35270	2.21	5.0E-81	AB007923.1	NT	Homo sapiens mRNA for KIAA0454 protein, partial cds
10174	23065	36462	1.15	5.0E-81	M60316.1	NT	Human transforming growth factor-beta (tgf-beta) mRNA, complete cds
10174	23065	36463	1.15	5.0E-81	M60316.1	NT	Human transforming growth factor-beta (tgf-beta) mRNA, complete cds
12015	24857	38357	2.24	5.0E-81	9506634	NT	Homo sapiens hypothetical protein (FLJ11045), mRNA
237	13335	26249	3.27	4.0E-81	AF252237.1	NT	Homo sapiens CRP2 binding protein mRNA, partial cds
3213	18261	29160	4.51	4.0E-81	AB037766.1	NT	Homo sapiens mRNA for KIAA1345 protein, partial cds
3696	16728	28819	0.71	4.0E-81	AW004608.1	EST_HUMAN	wa80h03.x1 NCI_CGAP_C63 Homo sapiens cDNA clone IMAGE:2505269 3' similar to TR-O43815 O43815 STRIATIN.1
4257	17273	30140	1.8	4.0E-81	AF263306.1	NT	Homo sapiens rab3 interacting protein variant 2 mRNA, partial cds
4257	17273	30141	1.8	4.0E-81	AF263306.1	NT	Homo sapiens rab3 interacting protein variant 2 mRNA, partial cds

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
7653	20587	33883	0.81	4.0E-81	4757893	NT	Homo sapiens calcium channel, voltage-dependent, L type, alpha 2/delta subunit (CACNA2) mRNA
7798	20727	34029	0.42	4.0E-81	11420944	NT	Homo sapiens ets variant gene 1 (ETV1), mRNA
8864	21704	35146	2.83	4.0E-81	X05989.1	NT	Human mRNA for amyloid A4(751) protein
9109	22037	35391	3.76	4.0E-81	U20197.1	NT	Human cone photoreceptor cGMP-phosphodiesterase alpha subunit gene, exons 2 and 3
9109	22037	35392	3.75	4.0E-81	U20197.1	NT	Human cone photoreceptor cGMP-phosphodiesterase alpha subunit gene, exons 2 and 3
9767	22661	36077	3.2	4.0E-81	AB018001.1	NT	Homo sapiens mRNA for Death-associated protein kinase 2, complete cds
10602	23488	36917	1.31	4.0E-81	11426281	NT	Homo sapiens ligase I, DNA, ATP-dependent (LIG1), mRNA
10687	23553	36985	0.77	4.0E-81	11439065	NT	Homo sapiens acyl-Coenzyme A dehydrogenase family, member 8 (ACAD8), mRNA
10687	23553	36986	0.77	4.0E-81	11439065	NT	Homo sapiens acyl-Coenzyme A dehydrogenase family, member 8 (ACAD8), mRNA
11630	24536	38006	4.28	4.0E-81	4759085	NT	Homo sapiens vesicle trafficking protein sec22b (SEC22B) mRNA
11630	24536	38007	4.28	4.0E-81	4759085	NT	Homo sapiens vesicle trafficking protein sec22b (SEC22B) mRNA
12286	25836	31492	8.56	4.0E-81	11417662	NT	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA
12286	25836	31493	8.56	4.0E-81	11417662	NT	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA
12793	25420	31792	5.08	4.0E-81	11417671	NT	Homo sapiens beta-ureidopropionase (LOC51733), mRNA
12793	25420	31793	5.08	4.0E-81	11417671	NT	Homo sapiens beta-ureidopropionase (LOC51733), mRNA
12923	25498	31769	3.6	4.0E-81	11417974	NT	Homo sapiens transcobalamin II; macrocytic anemia (TCN2), mRNA
1294	14327	27271	8.59	3.0E-81	Y18000.1	NT	Homo sapiens NF2 gene
1294	14327	27272	8.56	3.0E-81	Y18000.1	NT	Homo sapiens NF2 gene
2396	15400	28404	1.6	3.0E-81	AF077188.1	NT	Homo sapiens cullin 4A (CUL4A) mRNA, complete cds
3032	16084	28984	8.1	3.0E-81	4506280	NT	Homo sapiens pleiotrophin (heparin binding growth factor 8, neurite growth-promoting factor 1) (PTN) mRNA
3032	16084	28985	8.1	3.0E-81	4506280	NT	Homo sapiens pleiotrophin (heparin binding growth factor 8, neurite growth-promoting factor 1) (PTN) mRNA
2880	15935	28839	1.85	2.0E-81	BE784636.1	EST_HUMAN	601474072F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3877121 5'
2880	15935	28840	1.85	2.0E-81	BE784636.1	EST_HUMAN	601474072F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3877121 5'
3841	16870	28754	0.78	2.0E-81	AW611542.1	EST_HUMAN	hg85c01.x1 NCI_CGAP_Kid1 Homo sapiens cDNA clone IMAGE:2952384 3'
8535	21466	34807	11.82	2.0E-81	8923839	NT	Homo sapiens hypothelial protein (LOC55586), mRNA
13052	16870	28754	5.38	2.0E-81	AW611542.1	EST_HUMAN	hg85c01.x1 NCI_CGAP_Kid1 Homo sapiens cDNA clone IMAGE:2952384 3'
4636	17642	30505	2.98	1.0E-81	AA040370.1	EST_HUMAN	z44508.r1 Soares_pregnant uterus_NbHPU Homo sapiens cDNA clone IMAGE:485925 5' similar to
4756	17761	30623	6.96	1.0E-81	BE047996.1	EST_HUMAN	PIR:S52437 S52437 CDP-diacylglycerol synthase - fruit fly
5284	18270	31118	1.03	1.0E-81	9966944	NT	Human aconitase hydrolase (ACO2) gene, exon 3
5417	18416	38562	2.56	1.0E-81	U87928.1	NT	Human aconitase hydrolase (ACO2) gene, exon 3

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5538	18617	31467	3.74	1.0E-81	11432868	NT	Homo sapiens polymerase (DNA directed), gamma (POLG), mRNA
5538	18617	31468	3.74	1.0E-81	11432868	NT	Homo sapiens polymerase (DNA directed), gamma (POLG), mRNA
5692	18765	31699	0.71	1.0E-81	AA265669.1	EST_HUMAN	Z785d06.r1 Soares_NIHMPU_S1 Homo sapiens cDNA clone IMAGE:682475 5' similar to SW:PRI2_HUMAN
5851	18922	32036	2.99	1.0E-81	U52351.1	NT	P49843 DNA PRIMASE 58 KD SUBUNIT
5851	18922	32037	2.99	1.0E-81	U52351.1	NT	Homo sapiens arm-repeat protein NPRAP/neurotrophin (CTNND2) mRNA, partial cds
6386	19435	32603	1.68	1.0E-81	BF67484.1	EST_HUMAN	Homo sapiens arm-repeat protein NPRAP/neurotrophin (CTNND2) mRNA, partial cds
6386	19435	32603	1.68	1.0E-81	BF67484.1	EST_HUMAN	602137894F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4274535 5'
6828	19861	33072	0.53	1.0E-81	11420965	NT	Homo sapiens phosphodiesterase 1C, calmodulin-dependent (70kD) (PDE1C), mRNA
6828	19861	33073	0.53	1.0E-81	11420965	NT	Homo sapiens phosphodiesterase 1C, calmodulin-dependent (70kD) (PDE1C), mRNA
7042	20068	33302	0.94	1.0E-81	AJ133269.1	NT	Homo sapiens caveolin-1/2 locus, Contig1, D7S522, genes CAV2 (exons 1, 2a, and 2b), CAV1 (exons 1 and 2)
8242	21147	34480	7.73	1.0E-81	11432868	NT	Homo sapiens polymerase (DNA directed), gamma (POLG), mRNA
8272	21177	34513	0.68	1.0E-81	AJ250408.1	NT	Homo sapiens GLI3 gene for GLI3 protein
10295	23185	36596	1.97	1.0E-81	BE588278.1	EST_HUMAN	601645051F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:330228 5'
10295	23185	36597	1.97	1.0E-81	BE588278.1	EST_HUMAN	601645051F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:330228 5'
10475	23363	36777	6.75	1.0E-81	BE584387.1	EST_HUMAN	601343180F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3885483 5'
							act14d06.s1 Stralagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:866427 3' similar to SW:YB39_YEAST P38126 HYPOTHETICAL 60.5 KD PROTEIN IN RPS101-RPS13 INTERGENIC REGION:
10604	23480	36919	1.19	1.0E-81	AA630784.1	EST_HUMAN	601577339F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3838280 5'
10606	23492	36921	3.5	1.0E-81	BE744545.1	EST_HUMAN	601577339F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3838280 5'
10606	23492	36922	3.5	1.0E-81	BE744545.1	EST_HUMAN	601577339F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3838280 5'
10986	23870	37289	1.36	1.0E-81	AW697550.1	EST_HUMAN	CM3-NN0059-140400-147-412 NN0059 Homo sapiens cDNA
11379	24295	37741	1.91	1.0E-81	8923698	NT	Homo sapiens golgin-like protein (GLP), mRNA
11531	24441	37900	1.85	1.0E-81	AW844986.1	EST_HUMAN	MRO-CT0006-250599-019 CT0006 Homo sapiens cDNA
11531	24441	37901	1.85	1.0E-81	AW844986.1	EST_HUMAN	MRO-CT0006-250599-019 CT0006 Homo sapiens cDNA
11954	24788	38298	1.52	1.0E-81	BF204253.1	EST_HUMAN	601867714F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4110459 5'
12478	25221	31857	3.72	1.0E-81	11418138	NT	Homo sapiens photobin (similar to apolipoprotein B mRNA editing protein) (DJ742C19.2), mRNA
13	13128	26014	3.89	8.0E-82	AF161406.1	NT	Homo sapiens HSPC288 mRNA, partial cds
110	13128	26014	2.9	8.0E-82	AF161406.1	NT	Homo sapiens HSPC288 mRNA, partial cds
283	13377	26292	1.76	8.0E-82	U08988.1	NT	Human CRFB4 gene, partial cds
839	13894	26831	3.17	8.0E-82	U08988.1	NT	Human CRFB4 gene, partial cds
912	13984	26911	1.72	8.0E-82	U08988.1	NT	Human CRFB4 gene, partial cds
1509	14540	27502	1.39	8.0E-82	AB037748.1	NT	Homo sapiens mRNA for KIAA1327 protein, partial cds

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Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1684	14714	27676	1.75	8.0E-82	6715601	NT	Homo sapiens glutathione peroxidase 5 (epididymal androgen-related protein) (GPX5), transcript variant 2, mRNA
4342	17366	30221	0.88	8.0E-82	8923432	NT	Homo sapiens hypothetical protein FLJ20461 (FLJ20461), mRNA
1469	14300		1.19	7.0E-82	BF035327.1	EST_HUMAN	601486631F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5'
2817	15806	28804	2	7.0E-82	AU144050.1	EST_HUMAN	AU144050 HEMBA1 Homo sapiens cDNA clone HEMBA1000752 3'
4222	17238	30104	0.72	5.0E-82	AA515512.1	EST_HUMAN	n68e11.s1 NCL CGAP_C63 Homo sapiens cDNA clone IMAGE:925186 3'
1697	14727	27691	4.21	4.0E-82	AF081484.1	NT	Homo sapiens alpha-tubulin isoform 1 mRNA, complete cds
5686	18759	31682	0.67	4.0E-82	BF351691.1	EST_HUMAN	QV2-HT0540-120900-362-08 HT0540 Homo sapiens cDNA
5686	18759	31683	0.87	4.0E-82	BF351691.1	EST_HUMAN	QV2-HT0540-120900-362-08 HT0540 Homo sapiens cDNA
5964	19031	32152	0.63	4.0E-82	M25833.1	NT	Human von Willebrand factor gene, exon 9
11047	23931	37371	0.62	4.0E-82	AU787613.1	EST_HUMAN	we89g08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2348318 3'
12138	24978	38479	3.37	4.0E-82	AU937300.1	EST_HUMAN	wp75609.x1 NCL CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2467624 3' similar to TR:079276
12710	25362		3.86	4.0E-82	AF029701.2	NT	Homo sapiens presenilin-1 gene, exons 1 and 2
287	13391	26309	13.28	3.0E-82	4502166	NT	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA
726	13764	28709	2.41	3.0E-82	BE005705.1	EST_HUMAN	RC2-BN0120-010400-013-02 BN0120 Homo sapiens cDNA
814	13668	26806	4.14	3.0E-82	5174702	NT	Homo sapiens transforming growth factor beta-activated kinase-binding protein 1 (TAB1), mRNA
895	13948	26895	4.08	3.0E-82	4502166	NT	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA
1058	14132		19.09	3.0E-82	AA725848.1	EST_HUMAN	al23e05.x1 Soares_testis_NHT Homo sapiens cDNA clone 1343848 3'
1353	14415	27370	1.06	3.0E-82	AW876073.1	EST_HUMAN	RC6-PT0001-190100-021-B02 PT0001 Homo sapiens cDNA
1485	14516	27477	5.27	3.0E-82	AL163285.2	NT	Homo sapiens chromosome 21 segment HS21C085
1919	14940	27817	1.42	3.0E-82	BE813232.1	EST_HUMAN	RC1-BN0005-260700-018-g04 BN0005 Homo sapiens cDNA
3316	16363		2.43	3.0E-82	5453811	NT	Homo sapiens neurotrophic tyrosine kinase, receptor, type 2 (NTRK2) mRNA
8731	21661	35007	2.85	3.0E-82	11425206	NT	Homo sapiens contactin 6 (CNTN6), mRNA
9119	22047	35405	1.03	3.0E-82	11432889	NT	Homo sapiens contactin 6 (CNTN6), mRNA
9119	22047	35406	1.03	3.0E-82	11432889	NT	Homo sapiens contactin 6 (CNTN6), mRNA
10339	23228	36844	5.56	3.0E-82	AB029000.1	NT	Homo sapiens mRNA for KIAA1077 protein, partial cds
10339	23228	36945	5.56	3.0E-82	AB029000.1	NT	Homo sapiens mRNA for KIAA1077 protein, partial cds
618	13683	26585	1.99	2.0E-82	AB023216.1	NT	Homo sapiens mRNA for KIAA0999 protein, partial cds
618	13683	26586	1.99	2.0E-82	AB023216.1	NT	Homo sapiens mRNA for KIAA0999 protein, partial cds
1711	14739	27708	1.48	2.0E-82	AL046390.1	EST_HUMAN	DKFZp434M117_1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434M117 5'
3019	16071	28973	0.68	2.0E-82	AL163201.2	NT	Homo sapiens chromosome 21 segment HS21C001

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Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3838	18867	28760	1.74	2.0E-82	M86879.1	NT	H. sapiens plasminogen-epolipoprotein (a) gene family, exon for 1st kringle 4 repeat
3916	16943	29822	1.21	2.0E-82	D87675.1	NT	Human sapiens DNA for amyloid precursor protein, complete cds
4107	17131	30005	0.85	2.0E-82	U76833.1	NT	Human integral membrane serine protease Seprease mRNA, complete cds
4333	17347	30212	1.27	2.0E-82	4504116	NT	Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA
4673	17678	30547	1.19	2.0E-82	AB029019.1	NT	Homo sapiens mRNA for KIAA1096 protein, partial cds
4673	17678	30548	1.19	2.0E-82	AB029019.1	NT	Homo sapiens mRNA for KIAA1096 protein, partial cds
4978	17976	30837	2.71	2.0E-82	AF045555.1	NT	Homo sapiens wscr1 (WSCR1) and wscr5 (WSCR5) genes, complete cds, alternatively spliced and replication factor C subunit 2 (RFC2) gene, complete cds
5215	18205	31049	1.37	2.0E-82	4507580	NT	Homo sapiens tumor necrosis factor receptor superfamily, member 5 (TNFRSF5) mRNA
5215	18205	31050	1.37	2.0E-82	4507580	NT	Homo sapiens tumor necrosis factor receptor superfamily, member 5 (TNFRSF5) mRNA
5286	18272	31120	1.58	2.0E-82	4502506	NT	Homo sapiens complement component 5 (C5) mRNA
5657	18731	31636	2.56	2.0E-82	AB018270.1	NT	Homo sapiens mRNA for KIAA0727 protein, partial cds
6416	19464	32638	4.53	2.0E-82	AF234882.1	NT	Homo sapiens FAM441 splice variant a (FAM441) mRNA, complete cds
8134	25986		0.95	2.0E-82	AI476428.1	EST_HUMAN	tm21g06.x1 Soares NFL T_GBC S1 Homo sapiens cDNA clone IMAGE:2157272 3'
8313	21218	34554	0.87	2.0E-82	8923130	NT	Homo sapiens hypohelical protein FLJ20128 (FLJ20128), mRNA
8880	21810	35163	0.72	2.0E-82	11321570	NT	Homo sapiens slit (Drosophila) homolog 3 (SLIT3), mRNA
9227	22155	35507	0.57	2.0E-82	7657340	NT	Homo sapiens microchidia (mouse) homolog (MORC), mRNA
9227	22155	35508	0.57	2.0E-82	7657340	NT	Homo sapiens microchidia (mouse) homolog (MORC), mRNA
10610	23496	36926	2.13	2.0E-82	Y08032.1	NT	Human endogenous retrovirus-K, LTR U5 and gag gene
10610	23496	36927	2.13	2.0E-82	Y08032.1	NT	Human endogenous retrovirus-K, LTR U5 and gag gene
11716	24618	38094	2.47	2.0E-82	11417191	NT	Homo sapiens leucylcystinyl aminopeptidase (LNPEP), mRNA
11753	24654	38136	1.42	2.0E-82	11417191	NT	Homo sapiens leucylcystinyl aminopeptidase (LNPEP), mRNA
11753	24654	38137	1.42	2.0E-82	U80736.1	NT	Homo sapiens CAGF9 mRNA, partial cds
12313	25118		4.02	2.0E-82	N94950.1	EST_HUMAN	Homo sapiens CAGF9 mRNA, partial cds
12810	25432		2.98	2.0E-82	AA011278.1	EST_HUMAN	zb31d10.s1 Soares parathyroid tumor, NblHPA Homo sapiens cDNA clone IMAGE:305203 3'
613	13678	26580	1.29	1.0E-82	11545921	NT	z01g09.r1 Soares fetal liver, spleen, 1NF5, S1 Homo sapiens cDNA clone IMAGE:429568 5'
1236	14272		1.33	1.0E-82	BE885106.1	EST_HUMAN	601510859F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912207 5'
1312	14345	27291	3.39	1.0E-82	BE064386.1	EST_HUMAN	Homo sapiens melanoma differentiation associated protein-5 (MDA5), mRNA
1313	14346	27292	0.83	1.0E-82	AB011110.2	NT	RC4-BT0310-110300-015-f10 BT0310 Homo sapiens cDNA
9497	22425	35787	0.95	1.0E-82	AB037838.1	NT	Homo sapiens mRNA for KIAA0538 protein, partial cds
10739	23925		1.44	1.0E-82	BF515936.1	EST_HUMAN	Homo sapiens mRNA for KIAA1417 protein, partial cds
11186	24112	37560	1.65	1.0E-82	AL163209.2	NT	UI-HBW1-acc-f03-0-U1.s1 NCI CGAP Sub7 Homo sapiens cDNA clone IMAGE:3084053 3'
							Homo sapiens chromosome 21 segment HS21C009

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Table 4  
Single Exon Probes Expressed In Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5359	18339	31184	1.02	9.0E-83	AF224669.1	NT	Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds
8274	22202	35559	5.49	9.0E-83	BF672220.1	EST_HUMAN	602150403F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4291561 5'
10767	23653	37085	0.74	9.0E-83	BE253347.1	EST_HUMAN	601117160F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3357734 5'
1436	14467	27423	3.49	8.0E-83	BE383973.1	EST_HUMAN	601273346F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3614362 5'
1708	15852	27703	8.51	8.0E-83	N66951.1	EST_HUMAN	2c481f2.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:295823 3'
2808	15981		1.55	7.0E-83	AA684685.1	EST_HUMAN	nc12h01.s1 NCL_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100497 3' similar to contains Alu repetitive element
4929	17928		7.82	7.0E-83	BF221813.1	EST_HUMAN	7c37e07.x1 NCL_CGAP_P28 Homo sapiens cDNA clone IMAGE:3647893 3' similar to TR:Q9Y318 Q9Y318 DJ207H1.1
6286	19337	32504	0.71	7.0E-83	11420657	NT	Homo sapiens KIAA0100 gene product (KIAA0100), mRNA
426	13407	26420	1.72	6.0E-83	M33320.1	NT	Human platelet Glycoprotein IIb (GPIIb) gene, exons 2-29
1810	14835	27606	1.34	6.0E-83	AW573088.1	EST_HUMAN	h31h03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2933625 3' similar to SW:YBEB_HAEIN P44471 HYPOTHETICAL PROTEIN H10034.1
3083	16113	29018	0.78	6.0E-83	AW816405.1	EST_HUMAN	QV4-S10234-181168-037-05 S10234 Homo sapiens cDNA
3098	16149		0.88	6.0E-83	AF231919.1	NT	Homo sapiens chromosome 21 unknown mRNA
3821	16657	29557	3.85	6.0E-83	11430241	NT	Homo sapiens hypothetical protein FLJ10378 (FLJ10378), mRNA
5478	18557	31399	3.09	6.0E-83	4507886	NT	Homo sapiens VAMP (vesicle-associated membrane protein)-associated protein A (33kD) (VAPA) mRNA, and translated products
6256	19308	32472	1.14	6.0E-83	AJ010770.1	NT	Homo sapiens hyperion gene, exons 1-50
7924	20847	34152	1.58	6.0E-83	11422024	NT	Homo sapiens met proto-oncogene (hepatocyte growth factor receptor) (MET), mRNA
10201	23092	36493	3.09	6.0E-83	4505314	NT	Homo sapiens myomesin (M-protein) 2 (165kD) (MYOM2), mRNA
10289	23179	36590	0.92	6.0E-83	11430647	NT	Homo sapiens pre-mRNA splicing factor similar to S. cerevisiae Prp18 (PRP18), mRNA
10289	23179	36591	0.92	6.0E-83	11430647	NT	Homo sapiens pre-mRNA splicing factor similar to S. cerevisiae Prp18 (PRP18), mRNA
11962	24805		2.7	8.0E-83	AA488105.1	EST_HUMAN	ab14e10.s1 Stratagene lung (#837210) Homo sapiens cDNA clone IMAGE:840810 3' similar to contains THR12 THR repetitive element
12265	25093		3.23	8.0E-83	AF240788.1	NT	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds
974	14025		7.51	5.0E-83	U17883.1	NT	Human succinate dehydrogenase iron-protein subunit (sdhB) gene, exon 5
2084	15858		1.14	6.0E-83	AF006305.1	NT	Homo sapiens 26S proteasome regulatory subunit (SUG2) mRNA, complete cds
3706	16738	29927	0.93	5.0E-83	AL133207.2	NT	Novel human gene mapping to chromosome X
3980	17008	29996	0.79	5.0E-83	4685190	NT	Homo sapiens deoxyribonuclease I (DNASE1), mRNA
5213	18203	31047	16.68	6.0E-83	4557013	NT	Homo sapiens catalase (CAT) mRNA
5213	18203	31048	18.88	5.0E-83	4557013	NT	Homo sapiens catalase (CAT) mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
663	13725	25636	1.95	4.0E-83	AF224669.1	NT	Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds
3573	16610	29513	1.07	4.0E-83	BE888078.1	EST_HUMAN	601511590F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913195 5'
1025	14074		3.46	3.0E-83	AA368311.1	EST_HUMAN	EST179542 Placenta 1 Homo sapiens cDNA similar to similar to endogenous retrovirus ERV9
2827	15816		1.98	3.0E-83	AA632654.1	EST_HUMAN	np87c07.61 NCI_CGAP_Thy1 Homo sapiens cDNA clone IMAGE:1133292 similar to contains THR12 THR repetitive element;
6660	18892		0.7	3.0E-83	AI217223.1	EST_HUMAN	qf73c03.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1755682 3'
1822	14845	27820	1.28	2.0E-83	AA693492.1	EST_HUMAN	cd4g05.61 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1621592 3' similar to TR:Q92614
1822	14845	27821	1.28	2.0E-83	AA693492.1	EST_HUMAN	Q92614 MYELOBLAST KIAA0216.1
1940	14961	27839	5.63	2.0E-83	NG6951.1	EST_HUMAN	Q92614 MYELOBLAST KIAA0216.1
2194	15205	28209	1.01	2.0E-83	AB033098.1	NT	za48f12.61 Soares fetal liver spleen NPLS Homo sapiens cDNA clone IMAGE:295823 3'
2895	16949	28849	1.39	2.0E-83	BE828694.1	EST_HUMAN	Homo sapiens mRNA for KIAA1272 protein, partial cds
3313	19360		2.22	2.0E-83	11430834	NT	RC8-ET0046-280800-013-H12 ET0046 Homo sapiens cDNA
3842	18871		0.76	2.0E-83	AL163202.2	NT	Homo sapiens sal (Drosophila)-like 1 (SALL1), mRNA
4445	17466	30316	5.73	2.0E-83	AF202879.1	NT	Homo sapiens chromosome 21 segment HS21C002
4762	17767	30630	1.64	2.0E-83	7706398	NT	Homo sapiens hematopoietic progenitor cell antigen CD34 precursor (CD34) mRNA, partial cds
4762	17767	30631	1.64	2.0E-83	7706398	NT	Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA
5453	18534	31376	0.77	2.0E-83	U06679.1	NT	Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA
5658	18732	31697	0.44	2.0E-83	11024711	NT	Human carcinoembryonic antigen gene family member 18 (CGM18) gene, exons A1 and B1
5658	18732	31636	0.44	2.0E-83	11024711	NT	Homo sapiens myosin, heavy polypeptide 4, skeletal muscle (MYH4), mRNA
6059	19121	32249	0.69	2.0E-83	11428081	NT	Homo sapiens myosin, heavy polypeptide 4, skeletal muscle (MYH4), mRNA
6182	20076	32395	1.19	2.0E-83	BE885401.1	EST_HUMAN	Homo sapiens membrane protein CH1 (CH1), mRNA
7050	20076	33309	0.44	2.0E-83	AF128533.1	NT	601507482F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3909088 5'
7839	20767	34070	5.71	2.0E-83	AF128533.1	NT	Homo sapiens F-box protein Fbb3 (FBL3B) mRNA, partial cds
8312	21216	34652	0.47	2.0E-83	BF105097.1	EST_HUMAN	Homo sapiens F-box protein Fbb3 (FBL3B) mRNA, partial cds
8425	21357	34695	0.65	2.0E-83	AB001025.1	NT	601822000F1 NIH_MGC_75 Homo sapiens cDNA clone IMAGE:4042318 5'
8425	21357	34696	0.65	2.0E-83	AB001025.1	NT	Homo sapiens mRNA for brain tyrosine receptor, complete cds
8668	21497	34840	1.73	2.0E-83	U06670.1	NT	Homo sapiens mRNA for brain tyrosine receptor, complete cds
8889	21819	36170	2.5	2.0E-83	AF011920.1	NT	Rattus norvegicus desmin-180 mRNA, complete cds
8889	21819	35171	2.5	2.0E-83	AF011920.1	NT	Homo sapiens protein kinase CK2 catalytic subunit alpha gene, exon 1
10537	23423	36838	2.2	2.0E-83	M22094.1	NT	Homo sapiens protein kinase CK2 catalytic subunit alpha gene, exon 1
10537	23423	36839	2.2	2.0E-83	M22094.1	NT	Human neural cell adhesion molecule (N-CAM) secreted isoform mRNA, 3' end
10537	23423	36839	2.2	2.0E-83	M22094.1	NT	Human neural cell adhesion molecule (N-CAM) secreted isoform mRNA, 3' end

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
10617	23503	36937	1.55	2.0E-83	AU117659.1	EST_HUMAN	AU117659 HEMBA1 Homo sapiens cDNA clone HEMBA1001910 5'
10686	23572	37002	1.08	2.0E-83	AW50800.1	EST_HUMAN	U1-HF-BNO-amd-h-07-0-U1.1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3081852 5'
11284	24205	37655	4.46	2.0E-83	11436443	NT	Homo sapiens KIAA0985 protein (KIAA0985) mRNA
11365	24263	37726	1.74	2.0E-83	AL134462.1	EST_HUMAN	DKFZp547J135_r1 547 (synonym: hbr1) Homo sapiens cDNA clone DKFZp547J135 5'
11365	24263	37727	1.74	2.0E-83	AL134452.1	EST_HUMAN	DKFZp547J135_r1 547 (synonym: hbr1) Homo sapiens cDNA clone DKFZp547J135 5'
12842	25454		5.7	2.0E-83	AB011399.1	NT	Homo sapiens gene for AF-6, complete cds
1436	14466	27421	2.02	1.0E-83	4504326	NT	Homo sapiens hydroxyacyl-Coenzyme A dehydrogenase/3-ketacyl-Coenzyme A thiolase/enoyl-Coenzyme A hydratase (trifunctional protein), beta subunit (HADHB) mRNA
1435	14466	27422	2.02	1.0E-83	4504326	NT	Homo sapiens hydroxyacyl-Coenzyme A dehydrogenase/3-ketacyl-Coenzyme A thiolase/enoyl-Coenzyme A hydratase (trifunctional protein), beta subunit (HADHB) mRNA
1478	14509	27469	4.08	1.0E-83	AF105067.1	NT	Homo sapiens lipopolysaccharide-binding protein (LBP) mRNA, complete cds
1478	14509	27470	4.08	1.0E-83	AF105067.1	NT	Homo sapiens lipopolysaccharide-binding protein (LBP) mRNA, complete cds
2032	15049	28046	1.48	1.0E-83	4503652	NT	Homo sapiens fatty-acid-Coenzyme A ligase, very long-chain 1 (FACVL1) mRNA
2705	15099	28694	2.18	1.0E-83	BE883690.1	EST_HUMAN	601507375F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3908754 5'
3226	16274	29175	0.77	1.0E-83	7662349	NT	Homo sapiens cell recognition molecule Caspr2 (KIAA0868), mRNA
3937	16865	29847	3.66	1.0E-83	AF053768.1	NT	Rattus norvegicus brain specific corneal-binding protein CBP90 mRNA, partial cds
4343	17357	30222	2.32	1.0E-83	Z25822.1	NT	H. sapiens gene for mitochondrial dodecenoyl-CoA delta-isomerase, exon 3
6993	20020	33253	1.7	1.0E-83	AI027614.1	EST_HUMAN	ov99b08.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1645431 3' similar to gb:MB4241 QM PROTEIN (HUMAN);
3881	16890	29775	4.16	7.0E-84	BE801209.1	EST_HUMAN	601676023F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3958853 5'
1321	14354	27298	3.39	6.0E-84	BE838894.1	EST_HUMAN	RC2-FN0119-200600-011-g05 FN0119 Homo sapiens cDNA
1321	14354	27300	3.39	6.0E-84	BE838894.1	EST_HUMAN	RC2-FN0119-200600-011-g05 FN0119 Homo sapiens cDNA
2420	15424	28425	7.2	6.0E-84	AA776574.1	EST_HUMAN	ee86a03.s1 Stralagene schizo brain S11 Homo sapiens cDNA clone IMAGE:971020 3'
5420	18418		1.83	6.0E-84	AL042863.2	EST_HUMAN	DKFZp434H0322_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434H0322 5'
5708	18781	31711	1.68	6.0E-84	AA897339.1	EST_HUMAN	ai47g03.e1 Soares_NFL_I_GBC_S1 Homo sapiens cDNA clone IMAGE:1460500 3' similar to gb:MI4338
5857	18928	32045	1.36	6.0E-84	11426718	NT	VITAMIN K-DEPENDENT PROTEIN S PRECURSOR (HUMAN);
5857	18928	32045	1.36	6.0E-84	11426718	NT	Homo sapiens acetyl LDL receptor, SREC=scavenger receptor expressed by endothelial cells (SREC), mRNA
5857	18928	32046	1.36	6.0E-84	11426718	NT	Homo sapiens acetyl LDL receptor, SREC=scavenger receptor expressed by endothelial cells (SREC), mRNA
7893	20819	34125	3.48	6.0E-84	BE810371.1	EST_HUMAN	PMO-L10019-190600-004-F02 LT0019 Homo sapiens cDNA
8145	21054	34386	0.81	6.0E-84	AF038391.1	NT	Homo sapiens pre-miRNA splicing factor (PRP16) mRNA, complete cds
8651	21582	34917	2.71	6.0E-84	BE770199.1	EST_HUMAN	PM4-FT0054-160600-004-e10 FT0054 Homo sapiens cDNA
737	13795	26720	0.76	6.0E-84	AA382811.1	EST_HUMAN	EST06094 Testis 1 Homo sapiens cDNA 5' end



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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3058	16110		1.26	5.0E-84	AF109718.1	NT	Homo sapiens chromosome 3 subtelomeric region
6344	19394	32562	0.51	5.0E-84	AA167676.1	EST_HUMAN	zq39e07.r1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:602100 5' similar to TR:G483915 G483915 RETROTRANSPOSABLE L1 ELEMENT LRE2 FROM CHROMOSOME 1Q ;
11977	24820	38313	2.84	5.0E-84	11428740	NT	Homo sapiens regulatory factor X_3 (influences HLA class II expression) (RFX3), mRNA
1434	14465	27420	1.66	4.0E-84	A1685321.1	EST_HUMAN	wa76c04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2302086 3' similar to SW:NRDC_HUMAN O43847 NARDILYSIN PRECURSOR ;
5065	18062	30913	0.68	4.0E-84	4505928	NT	Homo sapiens polymerase (DNA-directed), alpha (70kD) (POLA2), mRNA
5068	18063	30914	2.02	4.0E-84	AF068601.2	NT	Homo sapiens myosin light chain kinase isoform 2 (MLCK) mRNA, complete cds
5444	16525	31251	0.46	4.0E-84	AF022835.1	NT	Homo sapiens multidrug resistance protein (MRP), exon 13
5754	18827	31927	1.59	4.0E-84	11386168	NT	Homo sapiens protein tyrosine phosphatase, receptor type, G (PTPRG), mRNA
5754	18827	31927	1.59	4.0E-84	11386168	NT	Homo sapiens protein tyrosine phosphatase, receptor type, G (PTPRG), mRNA
6620	19594	32746	3.17	4.0E-84	AF068650.1	NT	Homo sapiens histone deacetylase 3 (HDAC3), gene, complete cds
8098	21008	34333	13.7	4.0E-84	11421326	NT	Homo sapiens KIAA0783 gene product (KIAA0783), mRNA
9468	22396	35768	1.2	4.0E-84	4557628	NT	Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2) mRNA
9468	22396	35769	1.2	4.0E-84	4557628	NT	Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2) mRNA
11355	24273	37115	4.55	4.0E-84	AB032956.1	NT	Homo sapiens mRNA for KIAA1130 protein, partial cds
336	13428	26342	1.32	3.0E-84	AF026200.1	NT	Homo sapiens Bach1 protein homolog mRNA, partial cds
1974	14892	27975	1.69	3.0E-84	5453855	NT	Homo sapiens pericentriolar material 1 (PCM1) mRNA
2021	15039	28033	1.66	3.0E-84	AL086880.1	NT	Novel human mRNA containing Zinc finger C2H2 type domains
3811	16841	29728	7.05	3.0E-84	AF014459.1	NT	Homo sapiens X-linked juvenile retinoschisis precursor protein (XLRS1) mRNA, complete cds
11314	24233		10.94	3.0E-84	A1683801.1	EST_HUMAN	wu20d05.x1 Soares_Dieckgraefe_colon_NHGD Homo sapiens cDNA clone IMAGE:2620585 3' similar to db:L05093 60S RIBOSOMAL PROTEIN L18A (HUMAN);
2117	15130	28136	6.17	2.0E-84	BE695397.1	EST_HUMAN	CM1-BT0795-190600-272-b08 BT0795 Homo sapiens cDNA
2117	15130	28137	6.17	2.0E-84	BE695397.1	EST_HUMAN	CM1-BT0795-190600-272-b08 BT0795 Homo sapiens cDNA
2995	16037	28941	10.81	2.0E-84	AF036943.1	NT	Homo sapiens myelin transcription factor 1-like (MYT1L) mRNA, complete cds
3003	16055	28959	1.37	2.0E-84	X89211.1	NT	H sapiens DNA for endogenous retroviral like element
4905	17904	30773	0.91	2.0E-84	BF308518.1	EST_HUMAN	601887664F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4121727 5'
4905	17904	30774	0.91	2.0E-84	BF308518.1	EST_HUMAN	601887664F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4121727 5'
5716	18789	31720	0.91	2.0E-84	BF51575.1	EST_HUMAN	U1-H-B14-ad-a-02-0-U1.s1 NCL_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3084963 3'
5716	18789	31721	0.91	2.0E-84	BF51575.1	EST_HUMAN	U1-H-B14-ad-a-02-0-U1.s1 NCL_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3084963 3'
6928	19577	33178	1.03	2.0E-84	H63370.1	EST_HUMAN	yr56e11.s1 Soares fetal liver spleen.1N1LS Homo sapiens cDNA clone IMAGE:208324 3'
8635	21666		1.52	2.0E-84	A1298874.1	EST_HUMAN	qm87c09.x1 NCL_CGAP_Lu6 Homo sapiens cDNA clone IMAGE:1895728 3'
8956	21888	35244	0.58	2.0E-84	AL163204.2	NT	Homo sapiens chromosome 21 segment HS21C004

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8956	21888	35245	0.56	2.0E-84	AL163204.2	NT	Homo sapiens chromosome 21 segment HS21G004
9884	22799	36185	1.05	2.0E-84	AU120280.1	EST_HUMAN	AU120280 HEMBB1 Homo sapiens cDNA clone HEMBB1000339 5'
10252	23142	36551	0.64	2.0E-84	H22841.1	EST_HUMAN	ym49e11.1 Soares infant brain INIB Homo sapiens cDNA clone IMAGE:51383 5' similar to SP-APOH_RAT P28644 BETA-2-GLYCOPROTEIN1;
12502	25239	31863	1.66	2.0E-84	BF448000.1	EST_HUMAN	nae30a02.x1 Lupskl_sympathetic trunk Homo sapiens cDNA clone IMAGE:4090251 3' similar to TR-Q9UGS3 Q9UGS3 DJ756G23.1;
12502	25239	31894	1.66	2.0E-84	BF448000.1	EST_HUMAN	nae30a02.x1 Lupskl_sympathetic trunk Homo sapiens cDNA clone IMAGE:4090251 3' similar to TR-Q9UGS3 Q9UGS3 DJ756G23.1;
332	13422	26338	1.88	1.0E-84	AF114488.1	NT	Homo sapiens intercalin short isoform (ITSN) mRNA, complete cds
571	13639	26548	0.27	1.0E-84	4507952	NT	Homo sapiens tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide (YWHAZ) mRNA
743	13801		3.78	1.0E-84	11427831	NT	Homo sapiens complement component 5 (C5), mRNA
1319	14352	27297	2.6	1.0E-84	AA984379.1	EST_HUMAN	am85b11.s1 Strategene schizo brain S11 Homo sapiens cDNA clone IMAGE:1629885 3'
2067	16082	28081	2.16	1.0E-84	BE392137.1	EST_HUMAN	601308006F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3626257 5'
3814	16844	29730	2.93	1.0E-84	AA720891.1	EST_HUMAN	nwt2e08.s1 NCJ CGAP_S51 Homo sapiens cDNA clone IMAGE:1239106 3'
4524	17533	30395	6.66	1.0E-84	AJ228041.1	NT	Homo sapiens 959 kb contig between AML1 and GBR1 on chromosome 21q22; segment 1/3
4812	17813	30879	2.35	1.0E-84	AL043314.2	EST_HUMAN	DKFZp434N0323_1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434N0323 5'
4812	17813	30680	2.35	1.0E-84	AL043314.2	EST_HUMAN	DKFZp434N0323_1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434N0323 5'
5019	17533	30395	3.24	1.0E-84	AJ228041.1	NT	Homo sapiens 959 kb contig between AML1 and GBR1 on chromosome 21q22; segment 1/3
6144	18203	32340	0.69	1.0E-84	11434422	NT	Homo sapiens speckle-type POZ protein (SPÖP), mRNA
6431	19478	32655	1.2	1.0E-84	S73482.1	NT	uterine water channel=28 kda erythrocyte Integral membrane protein hamobg (human, uterus, mRNA, 1340 nt)
7207	20207	33452	2.17	1.0E-84	AL049784.1	NT	Novel human gene mapping to chromosome 13
7207	20207	33453	2.17	1.0E-84	AL049784.1	NT	Novel human gene mapping to chromosome 13
7466	20406	33682	2.62	1.0E-84	AL049784.1	NT	Novel human gene mapping to chromosome 13
7887	20813	34119	4.28	1.0E-84	8393994	NT	Homo sapiens polymerase (DNA directed), alpha (POLA), mRNA
7887	20813	34231	0.82	1.0E-84	11430846	NT	Homo sapiens NGF-A binding protein 1 (ERG1 binding protein 1) (NAB1), mRNA
8044	20915	34231	1.92	1.0E-84	11430846	NT	Homo sapiens NGF-A binding protein 1 (ERG1 binding protein 1) (NAB1), mRNA
10064	22980		2.69	1.0E-84	5031984	NT	Homo sapiens nuclear transport factor 2 (placental protein 15) (PP15) mRNA
10290	23180	36592	0.64	1.0E-84	AF224611.1	NT	Homo sapiens Ca2+-binding protein CABP3 (CABP3) gene, exon 6 and partial cds
10309	18424	31346	1.79	1.0E-84	4507848	NT	Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA
10309	18424	31349	1.79	1.0E-84	4507848	NT	Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA
12398	25169		3.39	1.0E-84	11417812	NT	Homo sapiens purinergic receptor P2X-like 1, orphan receptor (P2RXL1), mRNA
12494	25235	31860	2.85	1.0E-84	11418785	NT	Homo sapiens aconitase 2, mitochondrial (ACO2), mRNA

Table 4

## Single Exon Probes Expressed In Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
993	14043		1.11	9.0E-85	AL163209.2	NT	Homo sapiens chromosome 21 segment HS21C009
1100	14143	27080	1.81	9.0E-85	U51432.1	NT	Homo sapiens nuclear protein Skip mRNA, complete cds
1100	14143	27081	1.81	9.0E-85	U51432.1	NT	Homo sapiens nuclear protein Skip mRNA, complete cds
1600	14631	27560	15.16	9.0E-85	M33282.1	NT	Human plasminogen gene, exon 7
1600	14631	27591	15.16	9.0E-85	M33282.1	NT	Human plasminogen gene, exon 7
1701	14730	27696	2.32	9.0E-85		NT	Homo sapiens DKFZp434P211 protein (DKFZP434P211), mRNA
3848	16877	29761	1.2	9.0E-85	7661923	NT	Homo sapiens KIAA0125 gene product (KIAA0125), mRNA
3886	16895	29779	0.92	9.0E-85	7019478	NT	Homo sapiens nucleolar GTPase (HUMAUANTIG), mRNA
4350	17394	30228	1.17	9.0E-85	AL163280.2	NT	Homo sapiens chromosome 21 segment HS21C080
4985	17894	30842	1.14	9.0E-85	5901979	NT	Homo sapiens heat shock transcription factor 2 binding protein (HSF2BP), mRNA
5021	18018	30877	1.53	9.0E-85	AL163288.2	NT	Homo sapiens chromosome 21 segment HS21C068
1163	14204	27142	6.33	7.0E-85	L05094.1	NT	Homo sapiens ribosomal protein L27 mRNA, complete cds
12089	24810		3.45	7.0E-85	AF113210.1	NT	Homo sapiens MSTP030 mRNA, complete cds
11849	24689	38180	3.25	6.0E-85	11438573	NT	Homo sapiens DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 10 (RNA helicase) (DDX10), mRNA
11849	24689	38191	3.25	6.0E-85	11438573	NT	Homo sapiens DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 10 (RNA helicase) (DDX10), mRNA
2365	15362	28365	4.79	5.0E-85	AL163284.2	NT	Homo sapiens chromosome 21 segment HS21C084
4540	17549		0.7	5.0E-85	AF211189.1	NT	Homo sapiens T-type calcium channel alpha1 subunit Alpha1-a isoform (CACNA11) mRNA, complete cds
5636	18712	31612	1.64	5.0E-85	BF035674.1	EST_HUMAN	601458646F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3882402 5'
5636	18712	31613	1.64	5.0E-85	BF035674.1	EST_HUMAN	601468646F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3882402 5'
11559	24468	37933	1.62	5.0E-85	AF224669.1	NT	Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds
13050	17549		3.87	5.0E-85	AF211189.1	NT	Homo sapiens T-type calcium channel alpha1 subunit Alpha1-a isoform (CACNA11) mRNA, complete cds
6388	19437	32604	1.62	4.0E-85	BF677910.1	EST_HUMAN	602084730F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249087 6'
6388	19437	32605	1.62	4.0E-85	BF677910.1	EST_HUMAN	602084730F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249087 5'
7152	20260	33514	0.43	4.0E-85	AI028119.1	EST_HUMAN	ly84g01.x1 NCI_CGAP_KR11 Homo sapiens cDNA clone IMAGE:2285808 3'
11045	23528		1.92	4.0E-85	BE079263.1	EST_HUMAN	RG1-BT0823-120200-011-c07 BT0623 Homo sapiens cDNA
1325	14359	27306	0.9	3.0E-85	AF066157.1	NT	Homo sapiens protein phosphatase 2A BR gamma subunit gene, exon 6
1804	14830	27797	3.64	3.0E-85	T97495.1	EST_HUMAN	y63g09.r1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:121504 5'
5007	18005	30863	1.11	3.0E-85	11024695	NT	Homo sapiens F-box only protein 24 (FBXO24), mRNA
5007	18005	30864	1.11	3.0E-85	11024695	NT	Homo sapiens F-box only protein 24 (FBXO24), mRNA

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5083	18080	30929	1.05	3.0E-85	7363442	NT	Homo sapiens olfactory receptor, family 12, subfamily D, member 2 (OR12D2), mRNA
5588	18663	31539	1.37	3.0E-85	11436001	NT	Homo sapiens lactoferrin proline rich protein (LPRP), mRNA
6322	19372	32540	0.67	3.0E-85	11422024	NT	Homo sapiens <i>met</i> proto-oncogene (hepatocyte growth factor receptor) (MET), mRNA
6374	19423	32588	6.53	3.0E-85	7662309	NT	Homo sapiens KIAA0793 gene product (KIAA0793), mRNA
6374	19423	32589	6.53	3.0E-85	7662309	NT	Homo sapiens KIAA0793 gene product (KIAA0793), mRNA
7284	20237		6.92	3.0E-85	AJ404468.1	NT	Homo sapiens mRNA for dynein heavy chain (DNAH9 gene)
7794	20723	34026	0.87	3.0E-85	11416870	NT	Homo sapiens GTPase regulator associated with the focal adhesion kinase pp128(FAK), KIAA0821 protein (KIAA0821), mRNA
9075	22004	35358	1.05	3.0E-85	11525929	NT	Homo sapiens CGI-81 protein (LOC51108), mRNA
9529	22456	35818	3.8	3.0E-85	11430889	NT	Homo sapiens phospholipase C, epsilon (PLCE), mRNA
9846	22954	36343	0.91	3.0E-85	11421422	NT	Homo sapiens small nuclear ribonucleoprotein polypeptide B' (SNRNP2), mRNA
9846	22954	36344	0.91	3.0E-85	11421422	NT	Homo sapiens small nuclear ribonucleoprotein polypeptide B' (SNRNP2), mRNA
10961	23845	37271	0.71	3.0E-85	AF098842.1	NT	Homo sapiens phospholipid scramblase mRNA, complete cds
11939	24783	38280	2.49	3.0E-85	5031660	NT	Homo sapiens EGF-like repeats and disocidin-like domains 3 (EDIL3), mRNA
12961	25519		1.63	3.0E-85	11418177	NT	Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA
989	14039	26983	3.68	2.0E-85	7857266	NT	Homo sapiens KIAA0829 protein Mex2 Interacting nuclear target (MINT), homolog (KIAA0829), mRNA
1066	14110	27049	2.1	2.0E-85	AF248540.1	NT	Homo sapiens intersecin 2 (SHSD1B) mRNA, complete cds
1442	14473	27430	32.05	2.0E-85	5174775	NT	Homo sapiens apolipoprotein C-II (APOC2) mRNA
1442	14473	27431	32.05	2.0E-85	5174775	NT	Homo sapiens apolipoprotein C-II (APOC2) mRNA
2244	15254	28260	1.79	2.0E-85	U10525.1	NT	Human DNA polymerase beta gene, exons 12 and 13
2871	14397		6.52	2.0E-85	7857468	NT	Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA
3068	18120	29021	0.97	2.0E-85	M30938.1	NT	Human Ku (p70/p80) subunit mRNA, complete cds
4443	17454	30313	5.87	2.0E-85	4505980	NT	Homo sapiens plasminogen (PLG) mRNA
4680	17685	30553	0.82	2.0E-85	4826977	NT	Homo sapiens resilin (RELN) mRNA
5018	18016	30875	1.25	2.0E-85	AL183284.2	NT	Homo sapiens chromosome 21 segment HS21C084
5282	18268	31116	1.27	2.0E-85	4502212	NT	Homo sapiens arginase, liver (ARG1) mRNA
9813	22719	36102	0.99	2.0E-85	A1760920.1	EST_HUMAN	wi67h08.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2398431 3' similar to contains element
10175	23069	36484	0.94	2.0E-85	A1814459.1	EST_HUMAN	MSR1 repetitive element;
10755	23847	37075	1.14	2.0E-85	A1886384.1	EST_HUMAN	wi49d03.x1 Soeres NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2331461 3'
2306	15314		2.32	1.0E-85	BE794306.1	EST_HUMAN	wi94d12.x1 NCI_CGAP_U12 Homo sapiens cDNA clone IMAGE:2443607 3'
2416	16420	28421	7.32	1.0E-85	BE618392.1	EST_HUMAN	G01591416F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3945818 5'
2416	15420	28422	7.32	1.0E-85	BE618392.1	EST_HUMAN	G01462817F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3866021 5'
							G01462817F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3866021 5'

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8297	21201	34537	0.52	1.0E-85	BE02851.1	EST_HUMAN	MRO-BT0284-221189-002-003 BT0284 Homo sapiens cDNA
10300	23190	36601	2.55	1.0E-85	BE257917.1	EST_HUMAN	601109738F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350593 5'
11361	24279	37721	2.15	1.0E-85	AA778785.1	EST_HUMAN	Z4503.s1 Soares_fetal_liver_spleen_INFLS_S1 Homo sapiens cDNA clone IMAGE:453245 3'
11361	24279	37722	2.15	1.0E-85	AA778785.1	EST_HUMAN	Z4503.s1 Soares_fetal_liver_spleen_INFLS_S1 Homo sapiens cDNA clone IMAGE:453245 3'
11435	24351	37798	3.41	1.0E-85	BF311552.1	EST_HUMAN	601897003F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4126440 5'
11435	24351	37799	3.41	1.0E-85	BF311552.1	EST_HUMAN	601897003F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4126440 5'
12184	25020	38522	1.47	1.0E-85	AI198420.1	EST_HUMAN	q158e07.x1 NCL_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:1860488 3'
12400	25316	31819	5.29	1.0E-85	11417882	NT	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA
12837	25316	31819	5.28	1.0E-85	11417882	NT	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA
1460	14481		13	9.0E-86	BE274217.1	EST_HUMAN	601120778F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2967690 5'
6366	19415	32680	0.82	8.0E-86	11424140	NT	Homo sapiens similar to CDC28 protein kinase 1 (H. sapiens) (LOC63041), mRNA
12120	24981	38404	1.88	8.0E-86	4503224	NT	Homo sapiens cytochrome P450, subfamily IIF, polypeptide 1 (CYP2F1), mRNA
243	13340	26252	0.78	7.0E-86	7662247	NT	Homo sapiens KIAA0680 gene product (KIAA0680), mRNA
984	14014	26957	0.96	7.0E-86	AA80801.1	EST_HUMAN	aj8808.s1 Soares_parathyroid_tumor_NbHrPA Homo sapiens cDNA clone IMAGE:1403559 3'
984	14014	26957	0.96	7.0E-86	AA80801.1	EST_HUMAN	aj8808.s1 Soares_parathyroid_tumor_NbHrPA Homo sapiens cDNA clone IMAGE:1403559 3'
8437	19484	32659	0.98	7.0E-86	9868886	NT	Homo sapiens tumor endothelial marker 7 precursor (TEM7), mRNA
8437	19484	32660	0.96	7.0E-86	9868886	NT	Homo sapiens tumor endothelial marker 7 precursor (TEM7), mRNA
7317	18485	31309	6.57	7.0E-86	11421737	NT	Homo sapiens Tact (human T-cell leukemia virus type I) binding protein 1 (TAX1BP1), mRNA
9303	22231	35581	2.95	7.0E-86	L38557.1	NT	Homo sapiens galactose oxidase (GALC) gene, exon 15
10222	23113		1.77	7.0E-86	5453997	NT	Homo sapiens RAN binding protein 7 (RANBP7), mRNA
10278	23168	36581	1.94	7.0E-86	11626307	NT	Homo sapiens DiGeorge syndrome critical region gene 8 (DGCR8), mRNA
11399	24315	37761	1.6	7.0E-86	11417012	NT	Homo sapiens similar to transcription factor CA150 (H. sapiens) (LOC63170), mRNA
11399	24315	37762	1.6	7.0E-86	11417012	NT	Homo sapiens similar to transcription factor CA150 (H. sapiens) (LOC63170), mRNA
1320	14353	27298	1.98	6.0E-86	4505492	NT	Homo sapiens oxoglutarate dehydrogenase (lipemide) (OGDH), mRNA
225	13323	28241	2.67	4.0E-86	BE547173.1	EST_HUMAN	601072594F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3458830 5'
6268	19319	32483	10.62	4.0E-86	BE295843.1	EST_HUMAN	601176885F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531953 5'
11687	13323	28241	1.88	4.0E-86	BE547173.1	EST_HUMAN	601072594F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3458830 5'
4388	17402	30271	0.79	3.0E-86	BE887703.1	EST_HUMAN	601443262F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847455 5'
5780	18862	31970	6.08	3.0E-86	AV340948.1	EST_HUMAN	x28h12.x1 NCL_CGAP_Luc24 Homo sapiens cDNA clone IMAGE:2871719 3'
8838	21768	35114	1.23	3.0E-86	AV722329.1	EST_HUMAN	AV722329 HTB Homo sapiens cDNA clone HTB95D04 5'
10716	23602	37029	4.08	3.0E-86	BE886479.1	EST_HUMAN	601509866F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3911303 5'
10716	23602	37030	4.08	3.0E-86	BE886479.1	EST_HUMAN	601509866F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3911303 5'
11868	23968	37404	5.29	3.0E-86	AI659240.1	EST_HUMAN	tu18502.x1 NCL_CGAP_P128 Homo sapiens cDNA clone IMAGE:2251371 3'
12374	25779		2.69	3.0E-86	BE410354.1	EST_HUMAN	601302333F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638753 5'

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
286	13380	28284	1.87	2.0E-86	AA306264.1	EST_HUMAN	EST177232 Jurkat T-cells VI Homo sapiens cDNA 5' end
437	13508		2.2	2.0E-86	AL163203.2	NT	Homo sapiens chromosome 21 segment HS21C003
1218	14256	27198	2.32	2.0E-86	N58977.1	EST_HUMAN	yc19a08.r1 Soares_multiple_sclerosis_2/bhMSP Homo sapiens cDNA clone IMAGE:283478 5'
2207	15218	28222	7.73	2.0E-86	9635487	NT	Human endogenous retrovirus, complete genome
2287	15295	28303	1.88	2.0E-86	AB03103.1	NT	Homo sapiens mRNA for KIAA1277 protein, partial cds
3476	16516	29415	1.47	2.0E-86	AW966142.1	EST_HUMAN	EST378216 MAGE resequences, MAGI Homo sapiens cDNA
3809	16839	29725	3.26	2.0E-86	AF156776.1	NT	Homo sapiens lysophosphatidic acid acyltransferase-delta (LPAAT-delta) mRNA, complete cds
3809	16839	29726	3.26	2.0E-86	AF156776.1	NT	Homo sapiens lysophosphatidic acid acyltransferase-delta (LPAAT-delta) mRNA, complete cds
4124	17147		3.67	2.0E-86	AW515742.1	EST_HUMAN	hdb7g08.x1 NCL CGAP_GC6 Homo sapiens cDNA clone IMAGE:2816542 3'
4902	17801	30769	3.36	2.0E-86	AF056490.1	NT	Homo sapiens cAMP-specific phosphodiesterase 8A (PDE8A) mRNA, partial cds
6087	19148	32284	1.42	2.0E-86	Z16411.1	NT	H sapiens mRNA encoding phospholipase c
7429	25663	33367	0.83	2.0E-86	11419429	NT	H sapiens similar to ectonucleotide pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC63214), mRNA
8598	21519	34863	0.65	2.0E-86	U84744.1	NT	Human Chediak-Higashi syndrome protein short isoform (LYST) mRNA, complete cds
9137	22065	35425	3.11	2.0E-86	11437135	NT	Homo sapiens butyrobetaine (gamma), 2-oxoglutarate dioxygenase (gamma-butyrobetaine hydroxylase) (BBOX), mRNA
9137	22065	35426	3.11	2.0E-86	11437135	NT	Homo sapiens butyrobetaine (gamma), 2-oxoglutarate dioxygenase (gamma-butyrobetaine hydroxylase) (BBOX), mRNA
9460	22388	35751	1.06	2.0E-86	10883870	NT	Homo sapiens phospholipid scramblase 1 (PLSCR1), mRNA
9858	22773	36160	1.66	2.0E-86	11422084	NT	Homo sapiens chromosome segregation 1 (yeast homolog-like) (GSE1L), mRNA
10928	23813	37241	2.86	2.0E-86	11545846	NT	Homo sapiens basic-helix-loop-helix-PAS protein (NPAS3), mRNA
10981	23865	37292	1.09	2.0E-86	AB037632.1	NT	Homo sapiens basic-helix-loop-helix-PAS protein (NPAS3), mRNA
11342	24261	37701	1.95	2.0E-86	4759051	NT	Homo sapiens mRNA for KIAA1411 protein, partial cds
12788	25416	31769	3.57	2.0E-86	11418189	NT	Homo sapiens ribosomal protein S6 kinase, 80kD, polypeptide 5 (RPS6KA5) mRNA
12944	25510		3.21	2.0E-86	AB011399.1	NT	Homo sapiens gene for AF-6, complete cds
1620	14650	27613	1.82	1.0E-86	4826855	NT	Homo sapiens NADH dehydrogenase (ubiquinone) Fe-S protein 1 (75kD) (NADH-coenzyme Q reductase) (NDUFS1) mRNA
3205	16253	29149	1.98	1.0E-86	5453649	NT	Homo sapiens fibulin 5 (FBLN5) mRNA
3282	16330	29235	2.89	1.0E-86	L20492.1	NT	Human gamma-glutamyl transpeptidase mRNA, complete cds
3339	16385	29284	2.25	1.0E-86	AL163209.2	NT	Homo sapiens chromosome 21 segment HS21C009
3339	16385	29285	2.25	1.0E-86	AL163209.2	NT	Homo sapiens chromosome 21 segment HS21C009
4023	17050	29940	0.83	1.0E-86	7706161	NT	Homo sapiens hypothetical protein (LOC51318), mRNA

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4023	17050	20941	0.83	1.0E-86	7708161	NT	Homo sapiens hypothetical protein (LOC51318), mRNA
4364	17378	30242	6.6	1.0E-86	AL163300.2	NT	Homo sapiens chromosome 21 segment HS21C100
4734	17739	30601	0.7	1.0E-86	4507334	NT	Homo sapiens synaptotagmin 1 (SYNJ1), mRNA
5744	18817	31913	1.59	1.0E-86	AL163284.2	NT	Homo sapiens chromosome 21 segment HS21C084
5541	18620		1.67	9.0E-87	AI150703.1	EST_HUMAN	q67709.x1 Soares fetal heart_NH119W Homo sapiens cDNA clone IMAGE:1706126 3' similar to SW_K1CJ_MOUSE_P02535 KERATIN, TYPE I CYTOSKELETAL 10:
7852	20779	34080	2.05	9.0E-87	4757721	NT	Homo sapiens a disintegrin and metalloproteinase domain 22 (ADAM22), mRNA
7852	20779	34081	2.05	9.0E-87	4757721	NT	Homo sapiens a disintegrin and metalloproteinase domain 22 (ADAM22), mRNA
502	13572	26490	35.07	8.0E-87	X82245.1	NT	O. cuniculus mRNA for elongation factor 1 alpha
2315	15323	28324	2.46	7.0E-87	BF063211.1	EST_HUMAN	7a86102.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:3322779 3'
2316	15323	28325	2.46	7.0E-87	BF063211.1	EST_HUMAN	7a86102.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:3322779 3'
5655	19703	32808	0.81	7.0E-87	AW590336.1	EST_HUMAN	MRO-NT0039-020500-004-e11 NT0039 Homo sapiens cDNA
8707	21697	35041	3.23	7.0E-87	BF352776.1	EST_HUMAN	IL3-HT0619-060700-188-D10 HT0619 Homo sapiens cDNA
9866	21344	34679	0.65	7.0E-87	BE712661.1	EST_HUMAN	IL5-HT0702-160600-103-008 HT0702 Homo sapiens cDNA
10573	23459	36879	4.06	7.0E-87	AL043314.2	EST_HUMAN	DKFZp434N0323_1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434N0323 5'
10573	23459	36880	4.06	7.0E-87	AL043314.2	EST_HUMAN	DKFZp434N0323_1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434N0323 5'
10947	25696		0.57	7.0E-87	AI081565.1	EST_HUMAN	ox59H01.a1 Soares NHHMPu_S1 Homo sapiens cDNA clone IMAGE:1660857 3'
11328	24247	37684	7.39	7.0E-87	K03002.1	NT	Human mRNA from chromosome 15 gene with homology to MHG-HLA-SB-1 Intron A
11328	24247	37685	7.39	7.0E-87	K03002.1	NT	Human mRNA from chromosome 15 gene with homology to MHG-HLA-SB-1 Intron A
3588	16623	29528	0.66	6.0E-87	7657213	NT	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA
5688	19724	32924	1.45	6.0E-87	AB029004.1	NT	Homo sapiens mRNA for KIAA1081 protein, partial cds
11167	24095		3.56	6.0E-87	11432444	NT	Homo sapiens similar to SET translocation (myeloid leukemia-associated) (H. sapiens) (LOC63102), mRNA
1185	14225	27163	1.73	5.0E-87	AA392811.1	EST_HUMAN	EST186094 Testis 1 Homo sapiens cDNA 5' end
12838	14225	27163	1.65	5.0E-87	AA392811.1	EST_HUMAN	EST186094 Testis 1 Homo sapiens cDNA 5' end
992	14042	26885	1.1	4.0E-87	AL163210.2	NT	Homo sapiens chromosome 21 segment HS21C010
1200	14239	27179	10.9	4.0E-87	AB037835.1	NT	Homo sapiens mRNA for KIAA1414 protein, partial cds
2043	15060	29061	1.8	4.0E-87	AB007925.1	NT	Homo sapiens mRNA for KIAA0456 protein, partial cds
3526	16564	29486	1.64	4.0E-87	5174574	NT	Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA
5631	18707	31606	14.18	4.0E-87	C00321	SWISSPROT	ETS-RELATED PROTEIN 71 (ETS TRANSLLOCATION VARIANT 2)
5957	19024	32144	0.47	4.0E-87	U85429.1	NT	Human transcription factor NFATx3 mRNA, complete cds
6280	19331	32497	4.49	4.0E-87	BE247284.1	EST_HUMAN	TCBAP1E4051 Pediatric pro-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP4051

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8122	21032	34359	0.45	4.0E-87	11425291	NT	Homo sapiens KIAA1072 protein (KIAA1072), mRNA
8122	21032	34360	0.45	4.0E-87	11425291	NT	Homo sapiens KIAA1072 protein (KIAA1072), mRNA
8243	21148	34481	0.63	4.0E-87	L48524.1	NT	Homo sapiens tuberin (TSC2) gene, exon 10
9769	22693	36079	0.51	4.0E-87	AF223470.1	NT	Homo sapiens KIAA0971-l protein (KIAA0971-l), mRNA, complete cds
11608	24515	37984	4.02	4.0E-87	M60676.1	NT	Human von Willebrand factor pseudogene corresponding to exons 23 through 34
11651	24557	38026	1.42	4.0E-87	AB040537.1	NT	Homo sapiens DDx10 mRNA for RNA helicase, complete cds
11651	24567	38027	1.42	4.0E-87	AB040537.1	NT	Homo sapiens DDx10 mRNA for RNA helicase, complete cds
12730	25924	31484	1.8	4.0E-87	11417862	NT	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA
12730	25824	31485	1.8	4.0E-87	11417862	NT	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA
12868	25470		46.71	4.0E-87	11417812	NT	Homo sapiens putative receptor p2X-like 1, orphan receptor (P2RXL1), mRNA
2826	15815	28810	3.44	2.0E-87	4885420	NT	Homo sapiens high-mobility group (nonhistone chromosomal) protein 4 (HM/G4) mRNA
2990	16042		0.96	2.0E-87	BF327920.1	EST_HUMAN	QV02-BN0148-050600-254-c03 BNC148 Homo sapiens cDNA
3850	18879	20764	0.8	2.0E-87	AU116636.1	EST_HUMAN	AU116636 HEMBA1 Homo sapiens cDNA clone HEMBA100307 5'
5022	18019	30878	0.72	2.0E-87	BF376311.1	EST_HUMAN	CMO-TN0038-150900-552-108 TN0038 Homo sapiens cDNA
5073	18072	30921	0.73	2.0E-87	BE175478.1	EST_HUMAN	RC5-HT0580-200300-031-G04 HT0580 Homo sapiens cDNA
5358	18929	32047	11.67	2.0E-87	BE734190.1	EST_HUMAN	601569041F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3843730 5'
5658	18929	32048	11.67	2.0E-87	BE734190.1	EST_HUMAN	601569041F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3843730 5'
6583	19624		4.09	2.0E-87	BE667193.1	EST_HUMAN	601341383F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3685348 5'
6996	20023	33255	0.8	2.0E-87	N48128.1	EST_HUMAN	Y21e07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:243386 5'
7088	20294	33563	0.97	2.0E-87	AV654143.1	EST_HUMAN	AY654143 GLC Homo sapiens cDNA clone GLODSG04 3'
7537	20476	33764	1.3	2.0E-87	BE294432.1	EST_HUMAN	601176032F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531511 5'
7595	20531	33822	0.84	2.0E-87	11433046	NT	Homo sapiens hct domain and RLD 2 (HERC2), mRNA
7857	20794	34087	31.46	2.0E-87	N48128.1	EST_HUMAN	Y21e07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:243396 5'
8140	21049	34380	34.31	2.0E-87	N48128.1	EST_HUMAN	Y21e07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:243396 5'
8966	21898	35253	6.9	2.0E-87	X52851.1	NT	Human cyclophilin gene for cyclophilin (EC 5.2.1.8)
10304	23194		5.16	2.0E-87	BE631136.1	EST_HUMAN	601278316F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3610538 5'
1210	15849		1.81	1.0E-87	7705663	NT	Homo sapiens putative glycolipid transfer protein (LOC61054), mRNA
3773	15805	28682	3.62	1.0E-87	Y00052.1	NT	Human mRNA for T-cell cyclophilin
3796	16827	29714	2.03	1.0E-87	4768827	NT	Homo sapiens neurxin III (NRXN3) mRNA
5260	18246	31097	0.98	1.0E-87	U50949.1	NT	Rattus norvegicus taste bud receptor protein TB 041 (TB 041) gene, complete cds
6471	18516	32691	2.87	1.0E-87	AF073371.1	NT	Homo sapiens growth factor receptor-bound protein 10 (GRB10) gene, exon 8
6471	19516	32692	2.57	1.0E-87	AF073371.1	NT	Homo sapiens growth factor receptor-bound protein 10 (GRB10) gene, exon 8
7541	20480	33768	0.52	1.0E-87	AF039517.1	NT	Homo sapiens corticotropin-releasing factor type 1 receptor gene, exon 8
7541	20480	33769	0.52	1.0E-87	AF039517.1	NT	Homo sapiens corticotropin-releasing factor type 1 receptor gene, exon 8



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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
7547	20485	33774	0.87	1.0E-87	4506786	NT	Homo sapiens IQ motif containing GTPase activating protein 1 (IQGAP1) mRNA
7797	20726	34028	1.26	1.0E-87	11431590	NT	Homo sapiens protein kinase C, beta 1 (PRKCB1) mRNA
7665	20887	34198	0.44	1.0E-87	4506789	NT	Homo sapiens IQ motif containing GTPase activating protein 1 (IQGAP1) mRNA
8261	21166	34501	0.51	1.0E-87	4505526	NT	Homo sapiens solute carrier family 22 (organic cation transporter), member 1-like (SLC22A1L) mRNA
8693	21624	34867	0.05	1.0E-87	AF214592.1	NT	Homo sapiens tracheal epithelium enriched protein (PLUNC) gene, complete cds
9466	22394	35755	1.44	1.0E-87	AB022918.1	NT	Homo sapiens mRNA for alpha2,3-sialyltransferase ST3Gal VI, complete cds
9466	22394	35756	1.44	1.0E-87	AB022918.1	NT	Homo sapiens mRNA for alpha2,3-sialyltransferase ST3Gal VI, complete cds
10159	23050	36450	3.18	1.0E-87	BE818183.1	EST_HUMAN	RC6-BN0276-050700-012-E02
10169	23060	36451	3.18	1.0E-87	BE818183.1	EST_HUMAN	RC6-BN0276-050700-012-E02
10861	23747	37171	0.73	1.0E-87	M34426.1	NT	Human L-plastin mRNA, 5' end
11437	24353		1.63	1.0E-87	D10083.1	NT	Homo sapiens RGH1 gene, retrovirus-like element
12726	25658		1.95	1.0E-87	7657632	NT	Homo sapiens sulfotransferase-related protein (SULTX3) mRNA
13108	25623	31696	5.49	1.0E-87	AF169588.1	NT	Homo sapiens beta-ureidopropionase (BUP1) gene, exon 9
13108	25623	31697	5.49	1.0E-87	AF169588.1	NT	Homo sapiens beta-ureidopropionase (BUP1) gene, exon 9
947	13988	26941	2.32	9.0E-88	5453887	NT	Homo sapiens protease inhibitor 4 (kallistatin) (PI4) mRNA
1133	14175	27112	6.68	9.0E-88	AF167465.1	NT	Homo sapiens double stranded RNA activated protein kinase (PKR) gene, exon 12
1378	14410	27364	2.49	9.0E-88	AB037820.1	NT	Homo sapiens mRNA for KIAA1399 protein, partial cds
1378	14410	27365	2.49	9.0E-88	AB037820.1	NT	Homo sapiens mRNA for KIAA1399 protein, partial cds
2134	15147	29148	1.01	9.0E-88	7651701	NT	Homo sapiens DKFZP586P1522 protein (DKFZP586P1522), mRNA
3694	16726	29618	1.04	9.0E-88	AL163209.2	NT	Homo sapiens chromosome 21 segment HS21C009
4368	17382	30246	3.43	9.0E-88	X91929.1	NT	H. sapiens ECE-1 gene (exon 9)
4368	17382	30247	3.43	9.0E-88	X91929.1	NT	H. sapiens ECE-1 gene (exon 9)
5124	18120	30982	0.97	9.0E-88	AB028998.1	NT	Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds)
9572	22499	35863	3.09	6.0E-88	AF003528.1	NT	Homo sapiens X-linked anhidrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions
1852	14874		0.93	5.0E-88	7661887	NT	Homo sapiens KIAA0063 gene product (KIAA0063), mRNA
2687	16681	26692	3.6	5.0E-88	N69399.1	EST_HUMAN	K9710F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone K9719 5' similar to ZINC FINGER PROTEIN HZF1
3043	16095	26997	0.85	5.0E-88	AF114488.1	NT	Homo sapiens intracellular short isoform (ITSN) mRNA, complete cds
3054	16106	29011	0.68	5.0E-88	AF114488.1	NT	Homo sapiens intracellular short isoform (ITSN) mRNA, complete cds
3054	16106	29012	0.88	5.0E-88	AF114488.1	NT	Homo sapiens intracellular short isoform (ITSN) mRNA, complete cds

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3448	16489		3.11	6.0E-88	AI693217.1	EST_HUMAN	wc68h08.x1 NCI CGAP Lu24 Homo sapiens cDNA clone IMAGE:2336789 3' similar to contains Alu repetitive element/contains element MER22 MER22 repetitive element;
3598	16633	29538	0.82	6.0E-88	AF114488.1	NT	Homo sapiens Intersectin short isoform (ITSN) mRNA, complete cds
7077	20263	33540	2.67	5.0E-83	H10932.1	EST_HUMAN	ym06b10.1 Scores infant brain INIB Homo sapiens cDNA clone IMAGE:47120 5'
8508	21439	34779	2.37	5.0E-88	AL163284.2	NT	Homo sapiens chromosome 21 segment HS21C084
8852	22767	36152	0.55	5.0E-88	BF680206.1	EST_HUMAN	602154958F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4285775 5'
1357	14389	27343	1.33	4.0E-88	BF091228.1	EST_HUMAN	PM1-TN0028-060900-004-F10 TN0028 Homo sapiens cDNA
1357	14389	27344	1.33	4.0E-88	BF091229.1	EST_HUMAN	PM1-TN0028-060900-004-F10 TN0028 Homo sapiens cDNA
7613	20548	33840	2.54	4.0E-88	11416585	NT	Homo sapiens transforming growth factor, beta-induced, 68kD (TGFB1), mRNA
11921	24766	38282	1.93	4.0E-88	7661947	NT	Homo sapiens KIAA0152 gene product (KIAA0152), mRNA
11921	24766	38283	1.93	4.0E-88	7661947	NT	Homo sapiens KIAA0152 gene product (KIAA0152), mRNA
755	13812	26739	0.85	3.0E-88	11645800	NT	Homo sapiens hypothetical protein FLJ21634 (FLJ21634), mRNA
1834	14857		1.73	3.0E-88	4509020	NT	Homo sapiens zinc finger protein 259 (ZNF259) mRNA
2089	16041	28946	0.26	3.0E-88	N89851.1	EST_HUMAN	z48f1.2.61 Scores fetal liver spleen TNFLS Homo sapiens cDNA clone IMAGE:285823 3'
4339	17353	30215	0.93	3.0E-88	4501912	NT	Homo sapiens a disintegrin and metalloproteinase domain 23 (ADAM23) mRNA
4339	17353	30216	0.93	3.0E-88	4501912	NT	Homo sapiens a disintegrin and metalloproteinase domain 23 (ADAM23) mRNA
4691	17599		4.92	3.0E-88	11429300	NT	Homo sapiens hypothetical protein FLJ20220 (FLJ20220), mRNA
5482	18593	31407	2.94	3.0E-88	11429367	NT	Homo sapiens valosin-containing protein (VCP), mRNA
5779	18851	31956	3.42	3.0E-88	9966888	NT	Homo sapiens polycythemia rubra vera 1, cell surface receptor (PRV1), mRNA
5903	18972	32090	3.84	3.0E-88	11420697	NT	Homo sapiens v-rel simian leukemia viral oncogene homolog A (ras related) (RALA), mRNA
6402	19450	32621	0.86	3.0E-88	11417370	NT	Homo sapiens interleukin 13 (IL13), mRNA
6680	25652	32915	0.82	3.0E-88	11419210	NT	Homo sapiens activator of S phase kinase (ASK), mRNA
6680	25652	32916	0.82	3.0E-88	11419210	NT	Homo sapiens activator of S phase kinase (ASK), mRNA
7419	20118	33355	15.09	3.0E-88	AF278265.1	NT	Homo sapiens pulvise anion transporter 1 mRNA, complete cds
7970	20892	34204	5.24	3.0E-88	11436400	NT	Homo sapiens retinoblastoma-binding protein 2 (RBBP2), mRNA
8499	21430	34771	10.36	3.0E-88	11421728	NT	Homo sapiens growth differentiation factor 5 (cartilage-derived morphogenetic protein-1) (GDF5), mRNA
8774	21704	35049	1.76	3.0E-88	AF034374.1	NT	Homo sapiens polydactyl cofactor biosynthesis protein A and polydactyl cofactor biosynthesis protein C mRNA, complete cds
9068	21326	34659	0.76	3.0E-88	11528262	NT	Homo sapiens v-ets avian erythroblastosis virus E26 oncogene related (ERG), mRNA
10439	23327	36744	0.78	3.0E-88	AB015228.1	NT	Homo sapiens mRNA for RALDH2-T, complete cds
10438	23327	36745	0.78	3.0E-88	AB015228.1	NT	Homo sapiens mRNA for RALDH2-T, complete cds
10463	23351	36767	1.32	3.0E-88	11438065	NT	Homo sapiens acyl-Coenzyme A dehydrogenase family, member 8 (ACAD8), mRNA
12492	25226		5.29	3.0E-88	11417974	NT	Homo sapiens transcobalamin II; macrocytic anemia (TCN2), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1062	14106	27043	1.94	2.0E-88	7305198	NT	Homo sapiens Caldesin, presenilin-binding protein, EF hand transcription factor (CSEIN), mRNA
1647	14678	27641	2.21	2.0E-88	AF246219.1	NT	Homo sapiens SNARE protein kinase SNAK mRNA, complete cds
1775	14801	27769	3.81	2.0E-88	AF246219.1	NT	Homo sapiens SNARE protein kinase SNAK mRNA, complete cds
4532	17541	30403	2.13	2.0E-88	5031668	NT	Homo sapiens dynamin, axonemal, light polypeptide 4 (DNAL4), mRNA
6131	19190	32326	4.82	1.0E-88	AW139565.1	EST_HUMAN	UI-H-B11-aaa-d-04-Q-UI.s1 NCL_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2718760 3'
6131	19190	32327	4.82	1.0E-88	AW139565.1	EST_HUMAN	UI-H-B11-aaa-d-04-Q-UI.s1 NCL_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2718760 3'
6937	18966	33187	22.47	1.0E-88	AB007877.1	NT	Homo sapiens KIAA0417 mRNA, complete cds
6937	18966	33188	22.47	1.0E-88	AB007877.1	NT	Homo sapiens KIAA0417 mRNA, complete cds
7481	20421	33700	1.38	1.0E-88	AI869034.1	EST_HUMAN	Homo sapiens KIAA0417 mRNA, complete cds
7548	20486	33775	3.88	1.0E-88	AA488981.1	EST_HUMAN	wq70a12.x1 NCL_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2476606 3'
8715	21646	34982	0.65	1.0E-88	AF135183.1	NT	CE00861; Homo sapiens Recq helicase 5 (RECQ5) gene, alternative splice products, complete cds
9784	22748	36130	1.12	1.0E-88	AA190368.1	EST_HUMAN	z87c02.11 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:827170 5' similar to SW:POL1_HUMAN P10266 RETROVIRUS-RELATED POLYPROTEIN;
10109	22999	36396	3.12	1.0E-88	AL043314.2	EST_HUMAN	DKFZp434N0323_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434N0323 5'
11137	24066	37511	1.6	1.0E-88	AA897511.1	EST_HUMAN	aj62b09.s1 Soares, testis, NHT Homo sapiens cDNA clone IMAGE:1394873 3'
11878	23978	37416	3.31	1.0E-88	AA981479.1	EST_HUMAN	oa91g03.s1 NCL_CGAP_GC3 Homo sapiens cDNA clone IMAGE:1812766 3' similar to gb:M16342
12690	25347		4.6	1.0E-88	AL163246.2	NT	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEINS C1/C2 (HUMAN);
2784	15774	28770	2.06	8.0E-89	BE311557.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C046
7262	20171	33412	1.18	8.0E-89	11421514	NT	Homo sapiens similar to sena domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3A (H. sapiens) (LOC:63232), mRNA
456	13528	26450	1.22	7.0E-89	7657213	NT	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA
456	13528	26451	1.22	7.0E-89	7657213	NT	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA
4993	17952	30849	3.73	7.0E-89	4557390	NT	Homo sapiens complement component 8, beta polypeptide (C8B), mRNA
5042	18039	30895	7.08	7.0E-89	AL045748.1	EST_HUMAN	DKFZp434E246_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434E246 5'
5616	18992	31587	1.17	7.0E-89	X69832.1	NT	H. sapiens CLN3 gene, complete CDS
5616	18992	31588	1.17	7.0E-89	X69832.1	NT	H. sapiens CLN3 gene, complete CDS
6600	19841	32822	1.05	7.0E-89	7549808	NT	Homo sapiens CLN3 gene, complete CDS
6600	19841	32823	1.05	7.0E-89	7549808	NT	Homo sapiens plastin 3 (T isoform) (PLS3), mRNA
7920	20843	34147	1.87	7.0E-89	11420754	NT	Homo sapiens plastin 3 (T isoform) (PLS3), mRNA
8459	21390	34730	0.52	7.0E-89	11417118	NT	Homo sapiens actin related protein 2/3 complex, subunit 1A (41 kD) (ARPC1A), mRNA
8459	21390	34731	0.52	7.0E-89	11417118	NT	Homo sapiens KIAA0433 protein (KIAA0433), mRNA
11011	23895	37328	1.07	7.0E-89	X62048.1	NT	Homo sapiens KIAA0433 protein (KIAA0433), mRNA
							H. sapiens Wee1 hu gene

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11011	23895	37329	1.07	7.0E-89	X62048.1	NT	H.sapiens Wee1 hu gene
11024	23908	37348	2.15	7.0E-89	AB020630.1	NT	Homo sapiens mRNA for KIAA0823 protein, partial cds
11024	23908	37349	2.15	7.0E-89	AB020630.1	NT	Homo sapiens mRNA for KIAA0823 protein, partial cds
1050	14094	27033	0.83	6.0E-89	5803114	NT	Homo sapiens inner membrane protein, mitochondrial (IMMT), mRNA
2228	15238	28245	1.24	6.0E-89	4508124	NT	Homo sapiens serine/threonine-protein kinase PRP4 homolog (PRP4), mRNA
2458	15482	28458	1.4	6.0E-89	4507788	NT	Homo sapiens ubiquitin-conjugating enzyme E2L 3 (UBE2L3), mRNA
2458	15462	28459	1.4	6.0E-89	4507788	NT	Homo sapiens ubiquitin-conjugating enzyme E2L 3 (UBE2L3), mRNA
3586	16623	29526	1.14	6.0E-89	7861817	NT	Homo sapiens HSPG159 protein (HSPG159), mRNA
4749	17764	30613	3.61	6.0E-89	AB007866.2	NT	Homo sapiens mRNA for KIAA0405 protein, partial cds
4749	17764	30614	3.61	6.0E-89	AB007866.2	NT	Homo sapiens mRNA for KIAA0405 protein, partial cds
5209	18199	31042	3.43	6.0E-89	BE244323.1	EST_HUMAN	TCBAP2E0383 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP0383
5209	18199	31043	3.43	6.0E-89	BE244323.1	EST_HUMAN	TCBAP2E0383 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP0383
8026	20942	34257	1.31	4.0E-89	BE782749.1	EST_HUMAN	QV3-NT0022-080600-219-903 NT0022 Homo sapiens cDNA
11581	24490	37959	1.75	4.0E-89	AI798672.1	EST_HUMAN	we91c03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2348452 3'
5375	18357	31197	1.37	3.0E-89	BF331740.1	EST_HUMAN	RCE-BT0624-280600-015-H09 BT0624 Homo sapiens cDNA
7500	20439	33721	1.26	3.0E-89	AI217359.1	EST_HUMAN	qh17b06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1844815 3'
11239	24165	37611	1.54	3.0E-89	N57357.1	EST_HUMAN	yw86e11.r1 Soares_placenta_8b9weeks_2N8HP8c9W Homo sapiens cDNA clone IMAGE:259148 5' similar to SW:PI4K_HUMAN P42356 PHOSPHATIDYLINOSITOL 4-KINASE ALPHA;
131	13502	28428	0.7	2.0E-89	7706670	NT	Homo sapiens PXR2b protein (PXR2b), mRNA
131	13502	28427	0.7	2.0E-89	7706670	NT	Homo sapiens PXR2b protein (PXR2b), mRNA
431	13502	28428	0.83	2.0E-89	7706670	NT	Homo sapiens PXR2b protein (PXR2b), mRNA
431	13502	28427	0.83	2.0E-89	7706670	NT	Homo sapiens PXR2b protein (PXR2b), mRNA
653	13622	26530	0.94	2.0E-89	AB037763.1	NT	Homo sapiens mRNA for KIAA1342 protein, partial cds
2923	15976	28874	1.9	2.0E-89	AI222095.1	EST_HUMAN	qg96c08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843022 3' similar to gb:J04131
3613	16650	29550	0.88	2.0E-89	AA759149.1	EST_HUMAN	GAMMA-GLUTAMYL TRANSPEPTIDASE 1 PRECURSOR (HUMAN); contains Alu repetitive element
3613	16650	29551	0.88	2.0E-89	AA759149.1	EST_HUMAN	ah70c03.s1 Soares_testis_NHT Homo sapiens cDNA clone 1320988 3'
4243	17259	30125	1.06	2.0E-89	AF089897.1	NT	ah70c03.s1 Soares_testis_NHT Homo sapiens cDNA clone 1320988 3'
4251	17267	30135	5.06	2.0E-89	X58742.1	NT	Homo sapiens topoisomerase-related function protein (TRF4-2), mRNA, partial cds
4251	17267	30136	5.06	2.0E-89	X58742.1	NT	H.sapiens HCK gene for tyrosine kinase (PTK), exons 10-11
4251	17267	30136	5.06	2.0E-89	X58742.1	NT	H.sapiens HCK gene for tyrosine kinase (PTK), exons 10-11

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4458	17469	30326	0.78	2.0E-89	AL163203.2	NT	Homo sapiens chromosome 21 segment HS21C003
4617	17625	30489	1.32	2.0E-89	AJ007378.1	NT	Homo sapiens GGT gene, exon 5
5527	18606		0.93	2.0E-89	BE641744.1	EST_HUMAN	601066996F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3452423 5'
5660	18743	31653	4.61	2.0E-89	AB007549.1	NT	Homo sapiens gene for LECT2, complete cds
5989	19084	32191	1.41	2.0E-89	U03985.1	NT	Human N-ethylmaleimide-sensitive factor mRNA, partial cds
6454	19499	32873	0.71	2.0E-89	AL163285.2	NT	Homo sapiens chromosome 21 segment HS21C085
8120	21031	34368	5.52	2.0E-89	U81004.1	NT	Human GT24 (GT24) mRNA, partial cds
8613	21444	34788	2.59	2.0E-89	11428801	NT	Homo sapiens solute carrier family 24 (sodium/potassium/calcium exchanger), member 2 (SLC24A2), mRNA
8988	21917	35272	0.98	2.0E-89	AJ245503.1	NT	Homo sapiens partial mRNA for PEX5 related protein
9795	22759	36145	0.77	2.0E-89	AB037754.1	NT	Homo sapiens mRNA for KIAA1333 protein, partial cds
10326	23215	36627	0.6	2.0E-89	AF170814.1	NT	Homo sapiens CabP5 (CABP5) gene, exon 5
10326	23215	36628	0.6	2.0E-89	AF170814.1	NT	Homo sapiens CabP5 (CABP5) gene, exon 5
11812	24733	38224	2.45	2.0E-89	11434411	NT	Homo sapiens integrin, alpha 3 (antigen CD49C, alpha 3 subunit of VLA-3 receptor) (ITGA3), mRNA
12003	24845	38342	4.22	2.0E-89	11433673	NT	Homo sapiens cell adhesion molecule with homology to L1CAM (close homologue of L1) (CHL1), mRNA
12139	24979	38480	1.86	2.0E-89	U10692.1	NT	Human IMAGE-7 antigen (IMAGE7) pseudogene, complete cds
13109	25624		2.82	2.0E-89	AB012722.2	NT	Homo sapiens mRNA for kinesin-like protein, complete cds
12009	24851	38350	7.24	1.0E-89	BF196052.1	EST_HUMAN	h181d09.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134897 3' similar to TR:O54778 O54778 SOLUTE CARRIER FAMILY 22-LIKE 2 PROTEIN ;
12009	24851	38351	7.24	1.0E-89	BF196052.1	EST_HUMAN	h181d09.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134897 3' similar to TR:O54778 O54778 SOLUTE CARRIER FAMILY 22-LIKE 2 PROTEIN ;
8805	21735	35084	1.43	9.0E-90	AL163246.2	NT	Homo sapiens chromosome 21 segment HS21C046
8905	21735	35085	1.43	9.0E-90	AL163246.2	NT	Homo sapiens chromosome 21 segment HS21C046
1080	14134	27070	3.02	8.0E-90	AL163246.2	NT	Homo sapiens chromosome 21 segment HS21C046
1091	14134	27070	2.46	8.0E-90	AL163246.2	NT	Homo sapiens chromosome 21 segment HS21C046
1358	15898	27345	3.76	8.0E-90	BE670561.1	EST_HUMAN	7e36f08.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284583 3'
1358	15898	27346	3.76	8.0E-90	BE670561.1	EST_HUMAN	7e36f08.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284583 3'
9123	22051	35411	0.63	8.0E-90	BE177830.1	EST_HUMAN	RC1:HT0598-120-400-022-608 HJ0598 Homo sapiens cDNA
11143	24072	37518	1.58	8.0E-90	A1222095.1	EST_HUMAN	q99ec08.x1 Scores_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843022 3' similar to gb:JD4131 GAMMA-GLUTAMYLTRANSFERASE 1 PRECURSOR (HUMAN) contains Alu repetitive element

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Table 4

## Single Exon Probes Expressed In Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11143	24072	37510	1.58	8.0E-90	A1222095.1	EST_HUMAN	q98c08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843022.3' similar to gb:J04131 GAMMA-GLUTAMYLTRANSPETIDASE 1 PRECURSOR (HUMAN);contains Alu repetitive element;
861	13915		3.4	7.0E-90	AF223391.1	NT	Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced
8994	21923		2.01	7.0E-90	AA762977.1	EST_HUMAN	ai63d08.s1 Soares_testis_NHT Homo sapiens cDNA clone 1375503.3'
9518	22445	35808	2.33	7.0E-90	BE962525.2	EST_HUMAN	601855837R1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3855824.3'
9518	22445	35808	2.33	7.0E-90	BE962525.2	EST_HUMAN	601855837R1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3855824.3'
10635	23521	36955	2.02	7.0E-90	H68849.1	EST_HUMAN	y88e04.s1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:212190.3' similar to SP:C1TC_HUMAN P11589 C-1-TETRAHYDROFOLATE SYNTHASE, CYTOPLASMIC;
10635	23521	36955	2.02	7.0E-90	H68849.1	EST_HUMAN	y88e04.s1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:212190.3' similar to SP:C1TC_HUMAN P11589 C-1-TETRAHYDROFOLATE SYNTHASE, CYTOPLASMIC;
10934	23819	37246	0.88	7.0E-90	BF526089.1	EST_HUMAN	602071208F1 NCLCGAP_Brn64 Homo sapiens cDNA clone IMAGE:4214257.5'
3116	16167	28061	1.24	6.0E-90	X91926.1	NT	H sapiens ECE-1 gene (exon 6)
3116	16167	28062	1.24	6.0E-90	X91926.1	NT	H sapiens ECE-1 gene (exon 6)
4326	17340	30205	8.58	6.0E-90	8922398	NT	Homo sapiens hypothetical protein FLJ10388 (FLJ10388), mRNA
4326	17340	30206	8.58	6.0E-90	8922398	NT	Homo sapiens hypothetical protein FLJ10388 (FLJ10388), mRNA
6214	19259	32421	3.28	6.0E-90	U77700.1	NT	Homo sapiens HsGON1 mRNA, partial cds
6214	19259	32422	3.28	6.0E-90	U77700.1	NT	Homo sapiens HsGON1 mRNA, partial cds
8902	21832	35186	3.54	6.0E-90	4504794	NT	Homo sapiens insulin 1,4,5-triphosphate receptor, type 3 (ITPR3) mRNA
8902	21832	35187	3.54	6.0E-90	4504794	NT	Homo sapiens insulin 1,4,5-triphosphate receptor, type 3 (ITPR3) mRNA
165	13266		19.05	5.0E-90	AB034344.1	NT	Homo sapiens TGL6 gene, exon 1-10b
1220	14258	27188	6.75	5.0E-90	U80226.1	NT	Human gamma-aminobutyric acid transaminase mRNA, partial cds
1843	14856	27847	1.44	5.0E-90	A1222095.1	EST_HUMAN	q98c08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843022.3' similar to gb:J04131 GAMMA-GLUTAMYLTRANSPETIDASE 1 PRECURSOR (HUMAN);contains Alu repetitive element;
1843	14856	27848	1.44	5.0E-90	A1222095.1	EST_HUMAN	q98c08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843022.3' similar to gb:J04131 GAMMA-GLUTAMYLTRANSPETIDASE 1 PRECURSOR (HUMAN);contains Alu repetitive element;
2550	15538	28582	2.66	5.0E-90	AF114487.1	NT	Homo sapiens intercalin long isoform (ITSN) mRNA, complete cds
4656	17631	30520	2.27	5.0E-90	4508354	NT	Homo sapiens pregnancy-zone protein (PZP) mRNA
5785	18557	31865	2.88	5.0E-90	Z16411.1	NT	H sapiens mRNA encoding phospholipase c
5803	18975		0.58	5.0E-90	AF008915.1	NT	Homo sapiens EVI5 homolog mRNA, complete cds
5881	18950	32078	1.08	5.0E-90	AB016617.1	NT	Homo sapiens ELKS mRNA, complete cds

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5974	18857	31965	2.12	5.0E-90	Z16411.1	NT	H.sapiens mRNA encoding phospholipase c
7034	20060	33293	0.57	5.0E-90	9910365	NT	Homo sapiens Carbonic anhydrase-related protein 10 (LOC56934), mRNA
7034	20060	33294	0.57	5.0E-90	9910365	NT	Homo sapiens Carbonic anhydrase-related protein 10 (LOC56934), mRNA
7592	20518	33806	1.98	5.0E-90	AF113708.1	NT	Homo sapiens angiotensin 4 (ANG4) mRNA, partial cds
7592	20518	33807	1.98	5.0E-90	AF113708.1	NT	Homo sapiens angiotensin 4 (ANG4) mRNA, partial cds
7936	20914	34230	9.54	5.0E-90	4557258	NT	Homo sapiens adenylate cyclase 9 (ADCY9) mRNA
8859	21799	35154	5.19	5.0E-90	11345483	NT	Homo sapiens hypothelial protein FLJ13222 (FLJ13222), mRNA
10205	23096	36496	1.57	5.0E-90	11418428	NT	Homo sapiens similar to ectonucleotide pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC63214), mRNA
10773	23659	37088	0.92	5.0E-90	AF123303.1	NT	Homo sapiens calcium-binding transporter mRNA, partial cds
10927	23812	37240	13.14	5.0E-90	11433721	NT	Homo sapiens ATPase, aminophospholipid transporter-like, Class I, type 8A, member 2 (ATP8A2), mRNA
10983	23857	37264	0.59	5.0E-90	7692051	NT	Homo sapiens KIAA0317 gene product (KIAA0317), mRNA
10983	23857	37265	0.59	5.0E-90	7692051	NT	Homo sapiens KIAA0317 gene product (KIAA0317), mRNA
11353	24271	37713	4.85	5.0E-90	D49387.1	NT	Human mRNA for NADP dependent leukotene b4 12-hydroxydehydrogenase, partial cds
12227	25061	38559	1.41	5.0E-90	X98411.1	NT	H.sapiens mRNA for myosin-II-E
12962	25520		3.16	5.0E-90	AI523366.1	EST_HUMAN	ar78h05.x1 Berstead aorta HPLR86 Homo sapiens cDNA clone IMAGE:2128761 3'
322	13414	26331	1.88	4.0E-90	AF231920.1	NT	Homo sapiens chromosome 21 unknown mRNA
322	13414	26332	1.88	4.0E-90	AF231920.1	NT	Homo sapiens chromosome 21 unknown mRNA
1113	14155	27094	3.1	4.0E-90	4505316	NT	Homo sapiens myosin phosphatase, target subunit 1 (MYPT1), mRNA
1715	14743	27712	6.89	4.0E-90	X98033.1	NT	H.sapiens gene encoding discoidin receptor tyrosine kinase, exon 16
3037	16089	28990	0.97	4.0E-90	AF007544.1	NT	Homo sapiens prostate-specific membrane antigen (PSM) gene, complete cds
4767	17772	30639	2.34	4.0E-90	D87675.1	NT	Homo sapiens DNA for amyloid precursor protein, complete cds
4913	17912	30780	2.12	4.0E-90	AB033070.1	NT	Homo sapiens mRNA for KIAA1244 protein, partial cds
4932	17931	30780	2.22	4.0E-90	M95987.1	NT	Human prothrombin converting enzyme (NEC2) gene, exon 8
8435	21367	34707	0.91	3.0E-90	BF516168.1	EST_HUMAN	UI-HBW1-amyB-04-0-U1.s1 NCL CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3083938 3'
8435	21367	34708	0.91	3.0E-90	BF516168.1	EST_HUMAN	UI-HBW1-amyB-04-0-U1.s1 NCL CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3083938 3'
12036	24897	38402	16	3.0E-90	BE563833.1	EST_HUMAN	601335244F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3689147 5'
229	13327	26244	3.32	2.0E-90	BE537913.1	EST_HUMAN	601067378F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3453934 5'
1201	14240	27180	4.64	2.0E-90	5031748	NT	Homo sapiens high-mobility group (nonhistone chromosomal) protein 17 (HMG17), mRNA
1201	14240	27181	4.64	2.0E-90	5031748	NT	Homo sapiens high-mobility group (nonhistone chromosomal) protein 17 (HMG17), mRNA
3914	16942	29821	2.52	2.0E-90	AI138213.1	EST_HUMAN	qc54d02.x1 Soares, placenta, 8to9weeks, 2NHP809W Homo sapiens cDNA clone IMAGE:1713410 3'
5017	18015	30874	10.91	2.0E-90	5728855	NT	similar to SW:OLF3_MOUSE P23275 OLFACTORY RECEPTOR OR3.; Homo sapiens GRB2-related adaptor protein (GRAP) mRNA

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5984	19049	32173	0.53	2.0E-90	11525901	NT	Homo sapiens Rap2 interacting protein 8 (RIP8), mRNA
5984	19049	32174	0.53	2.0E-90	11525901	NT	Homo sapiens Rap2 interacting protein 8 (RIP8), mRNA
5993	19069	32185	3.84	2.0E-90	AW672686.1	EST_HUMAN	ba49605.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2899881 5' similar to TR:076208 O75208 HYPOTHETICAL 35.6 KD PROTEIN.;
10308	23198	36607	1.79	2.0E-90	11427320	NT	Homo sapiens similar to laminin receptor 1 (67kD, ribosomal protein SA) (H. sapiens) (LOC63484), mRNA
10308	23198	36608	1.79	2.0E-90	11427320	NT	Homo sapiens similar to laminin receptor 1 (67kD, ribosomal protein SA) (H. sapiens) (LOC63484), mRNA
10466	23354	36768	0.88	2.0E-90	AU118985.1	EST_HUMAN	AU118985 HEMBA1 Homo sapiens cDNA clone HEMBA1004795 5'
10466	23354	36769	0.88	2.0E-90	AU118985.1	EST_HUMAN	AU118985 HEMBA1 Homo sapiens cDNA clone HEMBA1004795 5'
11802	24002	37441	3.66	2.0E-90	11024711	NT	Homo sapiens myosin, heavy polypeptide 4, skeletal muscle (MYH4), mRNA
286	13390	26308	3.61	1.0E-90	4502166	NT	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA
395	16844	26398	1.35	1.0E-90	AF231920.1	NT	Homo sapiens chromosome 21 unknown mRNA
396	16844	26398	1.37	1.0E-90	AF231920.1	NT	Homo sapiens chromosome 21 unknown mRNA
719	13777	26698	1.78	1.0E-90	AJ237589.1	NT	Homo sapiens mRNA for T-box transcription factor (TBX20 gene), partial
719	13777	26699	1.78	1.0E-90	AJ237589.1	NT	Homo sapiens mRNA for T-box transcription factor (TBX20 gene), partial
753	13810	26736	7.36	1.0E-90	AF264750.1	NT	Homo sapiens ALR-like protein mRNA, partial cds
753	13810	26737	7.36	1.0E-90	AF264750.1	NT	Homo sapiens ALR-like protein mRNA, partial cds
1137	14179	26737	1.85	1.0E-90	4507828	NT	Homo sapiens Kruppel-like factor 7 (ubiquitous) (KLF7), mRNA
1332	14366	27315	3.13	1.0E-90	AF096154.1	NT	Homo sapiens protein phosphatase 2A BR gamma subunit gene, exon 3
1332	14366	27316	3.13	1.0E-90	AF096154.1	NT	Homo sapiens protein phosphatase 2A BR gamma subunit gene, exon 3
1694	14724	27316	1.02	1.0E-90	BE379884.1	EST_HUMAN	601159563F2 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3511118 5'
1920	14941	27918	2.41	1.0E-90	11420514	NT	Homo sapiens similar to SALL1 (3a) (Drosophila)-like (LOC57167), mRNA
2898	16950	28850	9.01	1.0E-90	6006720	NT	Homo sapiens chromosome 8 open reading frame 2 (C8ORF2), mRNA
3918	16946	29826	1.12	1.0E-90	AB020710.1	NT	Homo sapiens chromosome 8 open reading frame 2 (C8ORF2), mRNA
3918	16946	29827	1.12	1.0E-90	AB020710.1	NT	Homo sapiens mRNA for KIAA0903 protein, partial cds
4530	17539	30401	1.4	1.0E-90	AF167340.1	NT	Homo sapiens soluble interleukin 1 receptor accessory protein (IL-1RAP) gene, exon 8, alternative exons 9 and complete cds, alternatively spliced
5872	18942	32058	2.04	1.0E-90	AB014633.1	NT	Homo sapiens mRNA for KIAA0633 protein, partial cds
6080	19112	32241	0.88	1.0E-90	11426910	NT	Homo sapiens KIAA0623 gene product (KIAA0623), mRNA
6849	19981	33095	0.42	1.0E-90	11419406	NT	Homo sapiens cytochrome P450, 51 (lanosterol 14-alpha-demethylase) (CYP51), mRNA
7428	20127	33366	0.87	1.0E-90	U91934.1	NT	Human retina-derived POU-domain factor-1 mRNA, complete cds
7687	20620	33920	0.63	1.0E-90	6006002	NT	Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2A (GRIN2A) mRNA



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Table 4

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8124	21034	34363	2.37	1.0E-90	11426758	NT	Homo sapiens solute carrier family 1 (high affinity aspartate/glutamate transporter), member 8 (SLC1A8), mRNA
9380	22308	35699	3.97	1.0E-90	11422086	NT	Homo sapiens bradikinin A-inhibited guanine nucleotide-exchange protein 2 (BIG2), mRNA
9833	22739		0.99	1.0E-90	AF163964.1	NT	Homo sapiens SNCA isoform (SNCA) gene, complete cds, alternatively spliced
9859	22771	36157	1.57	1.0E-90	11422109	NT	Homo sapiens CGI-15 protein (LOC51006), mRNA
9858	22771	36158	1.57	1.0E-90	11422108	NT	Homo sapiens CGI-15 protein (LOC51006), mRNA
11477	24390	37840	1.49	1.0E-90	J04474.1	NT	Human branched chain alpha-keto acid dehydrogenase mRNA, 3' end
4292	17306	30175	7.85	8.0E-91	D12234.1	EST_HUMAN	HUM0003381 Liver HepG2 cell line. Homo sapiens cDNA clone s381 3'
1464	14495	27456	1.24	7.0E-91	AF053768.1	NT	Rattus norvegicus brain specific cortactin-binding protein CBP80 mRNA, partial cds
8881	21811	35164	1.68	7.0E-91	11419234	NT	Homo sapiens makorin, ring finger protein, 1 (MKRN1), mRNA
10789	23879	37105	0.71	7.0E-91	AI804151.1	EST_HUMAN	GM-BT043-090299-075 BT043 Homo sapiens cDNA
3534	16572	29476	1.56	5.0E-91	AA702794.1	EST_HUMAN	Z98004.s1 Soares_fetal_liver_spleen_1NPLS_ST Homo sapiens cDNA clone IMAGE:448016 3'
4637	17643	30506	1.14	5.0E-91	AU143539.1	EST_HUMAN	AU143539 Y79AA1 Homo sapiens cDNA clone Y79AA1002087 6'
4637	17643	30507	1.14	5.0E-91	AU143539.1	EST_HUMAN	AU143539 Y79AA1 Homo sapiens cDNA clone Y79AA1002087 5'
4923	17922	30785	0.67	5.0E-91	7110634	NT	Homo sapiens chromosome 22 open reading frame 5 (C22ORF5), mRNA
4923	17922	30786	0.67	5.0E-91	7110634	NT	Homo sapiens chromosome 22 open reading frame 5 (C22ORF5), mRNA
6903	19933	33151	1.02	5.0E-91	AI879895.1	EST_HUMAN	a449709.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2518121 3' similar to SW:ASPG FLAME Q47898 N4(BETA-N-ACETYLGLUCOSAMINYL)-L-ASPARAGINASE PRECURSOR;
8783	21713	35080	1.53	5.0E-91	BF314582.1	EST_HUMAN	601901824F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4130983 5'
9319	22247	35609	1.77	5.0E-91	AV849878.1	EST_HUMAN	AV849878 GLC Homo sapiens cDNA clone GLCBYF08 3'
9319	22247	35610	1.77	5.0E-91	AV849878.1	EST_HUMAN	AV849878 GLC Homo sapiens cDNA clone GLCBYF08 3'
3246	16294	29197	1.57	4.0E-91	AF156776.1	NT	Homo sapiens lysophosphatidic acid acyltransferase-delta (LPAAT-delta) mRNA, complete cds
3246	16294	29198	1.57	4.0E-91	AF156776.1	NT	Homo sapiens lysophosphatidic acid acyltransferase-delta (LPAAT-delta) mRNA, complete cds
11368	24286	37731	1.65	4.0E-91	AL163284.2	NT	Homo sapiens chromosome 21 segment HS21C084
12442	25197	31846	3.04	4.0E-91	M77694.1	EST_HUMAN	EST01579 Hippocampus, Striatum (cat. #936205) Homo sapiens cDNA clone HHCMC60 similar to
12442	25197	31882	3.04	4.0E-91	M77694.1	EST_HUMAN	EST01579 Hippocampus, Striatum (cat. #936205) Homo sapiens cDNA clone HHCMC60 similar to
1640	14671	27634	1.86	3.0E-91	11430163	NT	Homo sapiens solute carrier family 4, anion exchanger, member 3 (SLC4A3), mRNA
1640	14671	27635	1.85	3.0E-91	11430163	NT	Homo sapiens solute carrier family 4, anion exchanger, member 3 (SLC4A3), mRNA
1614	15853	27812	1.31	3.0E-91	AF265555.1	NT	Homo sapiens ubiquitin-conjugating BIR-domain enzyme APOLLON mRNA, complete cds
2166	15168	28170	1.99	3.0E-91	BE205792.1	EST_HUMAN	bb49802.x1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3009983 3' similar to TR:O28081 O28081 2-DEOXY-D-GLUCONATE 3-DEHYDROGENASE ;contains Alu repetitive element;

Table 4  
Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2706	15702	28697	2.4	3.0E-91	AF169555.1	NT	Homo sapiens beta-ureidopropionase (BUP1) gene, exon 6
2708	15702	28698	2.4	3.0E-91	AF169555.1	NT	Homo sapiens beta-ureidopropionase (BUP1) gene, exon 6
3398	16431	29335	1.12	3.0E-91	AL163283.2	NT	Homo sapiens chromosome 21 segment HS21C083
3523	16561	29484	3.48	3.0E-91	AB033104.1	NT	Homo sapiens mRNA for KIAA1278 protein, partial cds
3523	16561	29485	3.48	3.0E-91	AB033104.1	NT	Homo sapiens mRNA for KIAA1278 protein, partial cds
3853	16882	29767	0.72	3.0E-91	AF084530.1	NT	Homo sapiens cyclin-D binding Myb-like protein mRNA, complete cds
4703	17708	30571	4.4	3.0E-91	M30938.1	NT	Human Ku (p70/p80) subunit mRNA, complete cds
5101	18098	30945	1.29	3.0E-91	AL163285.2	NT	Homo sapiens chromosome 21 segment HS21C085
5101	18098	30946	1.29	3.0E-91	AL163285.2	NT	Homo sapiens chromosome 21 segment HS21C085
6884	18953	32068	1.52	3.0E-91	11434984	NT	Homo sapiens epididymal secretory protein (19.9KD) (HE1), mRNA
6559	19601		3.02	3.0E-91	4502740	NT	Homo sapiens cyclin-dependent kinase 8 (CDK8) mRNA
6865	19897	33112	3.37	3.0E-91	11497611	NT	Homo sapiens gamma-aminobutyric acid (GABA) B receptor, 1 (GABBR1), transcript variant 2, mRNA
6865	19897	33113	3.37	3.0E-91	11497611	NT	Homo sapiens gamma-aminobutyric acid (GABA) B receptor, 1 (GABBR1), transcript variant 2, mRNA
8087	20999	34320	3.75	3.0E-91	U89959.1	NT	Human L-type calcium channel beta-1 subunit (CACNLB1) gene, exons 10 and 11
8087	20999	34321	3.75	3.0E-91	U89959.1	NT	Human L-type calcium channel beta-1 subunit (CACNLB1) gene, exons 10 and 11
8525	21456	34798	0.55	3.0E-91	6601589	NT	Homo sapiens ankyrin-like with transmembrane domains 1 (ANKTM1), mRNA
9330	22258	35622	2.74	3.0E-91	D18494.1	NT	Human mRNA for very low density lipoprotein receptor, complete cds
9828	22734	36116	0.94	3.0E-91	AB011168.1	NT	Homo sapiens mRNA for KIAA0594 protein, partial cds
11326	24245	37663	1.56	3.0E-91	AB032179.2	NT	Homo sapiens EHM2 mRNA, complete cds
12672	25338	31823	1.51	3.0E-91	AF240783.1	NT	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds
12888	15702	28697	9.82	3.0E-91	AF169555.1	NT	Homo sapiens beta-ureidopropionase (BUP1) gene, exon 6
12889	15702	28698	9.82	3.0E-91	AF169555.1	NT	Homo sapiens beta-ureidopropionase (BUP1) gene, exon 6
51	13188	26065	2.07	1.0E-91	AL183284.2	NT	Homo sapiens chromosome 21 segment HS21C084
1273	14337	27258	4.71	1.0E-91	AW449746.1	EST_HUMAN	U1-H-B18-aka-01-0-J1 s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2735280 3'
5588	18674	31552	0.88	1.0E-91	11434402	NT	Homo sapiens hypothetical protein PRO1855 (PRO1855), mRNA
7159	20267	33522	1.7	1.0E-91	BF348182.1	EST_HUMAN	602022088F1 NCI_CGAP_Brr67 Homo sapiens cDNA clone IMAGE:4157804 5'
7159	20267	33523	1.7	1.0E-91	BF348182.1	EST_HUMAN	602022088F1 NCI_CGAP_Brr67 Homo sapiens cDNA clone IMAGE:4157804 5'
8309	21302	34633	0.49	1.0E-91	M20453.1	NT	Human nucleus-enclosed mitochondrial aldehyde dehydrogenase 2 (ALDH2) gene, exon 10
1289	14304	27252	7.34	9.0E-92	AJ001689.1	NT	Homo sapiens NKGD2 gene, exon 10
1289	14304	27253	7.34	9.0E-92	AJ001689.1	NT	Homo sapiens NKGD2 gene, exon 10
5361	18343	31187	1.21	9.0E-92	AB020640.1	NT	Homo sapiens mRNA for KIAA0833 protein, partial cds

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5649	18723	31629	3.89	8.0E-92	J03007.1	NT	Human Na <sup>+</sup> K <sup>+</sup> ATPase alpha-subunit mRNA, partial cds
5799	18871	31979	2.82	9.0E-92	11427149	NT	Homo sapiens hypothetical protein FLJ20260 (FLJ20260), mRNA
6724	19760	32067	4.13	9.0E-92	AF310105.1	NT	Homo sapiens NALP1 mRNA, complete cds
8946	21876	35236	1.2	9.0E-92	AB040945.1	NT	Homo sapiens mRNA for KIAA1512 protein, partial cds
8946	21876	35237	1.2	9.0E-92	AB040945.1	NT	Homo sapiens mRNA for KIAA1512 protein, partial cds
9814	22720	36103	2.3	9.0E-92	11422088	NT	Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 2 (BIG2), mRNA
95	13208	26120	6.86	8.0E-92	W26367.1	EST_HUMAN	263 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA
305	13399	26316	2.99	8.0E-92	BE386363.1	EST_HUMAN	601273513F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3614687 6'
5577	18655	31632	0.76	8.0E-92	AB046820.1	NT	Homo sapiens mRNA for KIAA1600 protein, partial cds
5688	18791	31885	0.63	8.0E-92	AF264717.1	NT	Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP2 mRNA, complete cds
6926	19859	33071	1.03	8.0E-92	AJ000979.1	NT	Homo sapiens MCP-4 gene
6830	19853	33076	0.91	8.0E-92	AF179428.1	NT	Homo sapiens DNA polymerase zeta catalytic subunit variant 1 (REV3L) mRNA, complete cds
8241	21146	34478	7.76	8.0E-92	X69536.1	NT	H. sapiens gene for inter-alpha-trypsin inhibitor heavy chain H1, exons 7-8
8241	21146	34479	7.75	8.0E-92	X69536.1	NT	H. sapiens gene for inter-alpha-trypsin inhibitor heavy chain H1, exons 7-8
8670	21901		0.97	8.0E-92	11416961	NT	Homo sapiens AIM-1 protein (LOC51151), mRNA
8995	21924	35278	4.05	8.0E-92	L04193.1	NT	Human lens membrane protein (mp19) gene, exon 11
8995	21924	35279	4.05	8.0E-92	L04193.1	NT	Human lens membrane protein (mp19) gene, exon 11
9088	22017	35373	0.9	8.0E-92	11426569	NT	Homo sapiens transcription termination factor, RNA polymerase II (TTF2), mRNA
9614	22540	35910	3.04	8.0E-92	AB014511.1	NT	Homo sapiens mRNA for KIAA0611 protein, partial cds
10529	23415	36929	1.11	8.0E-92	Y13826.1	NT	Homo sapiens mRNA for MBNL protein
11243	24168	37615	3.46	8.0E-92	AF074393.1	NT	Homo sapiens nuclear mitogen- and stress-activated protein kinase-1 (MSK1) mRNA, complete cds
11769	24721	38214	1.39	8.0E-92	4503340	NT	Homo sapiens dihydropyrimidine S-succinyltransferase (E2 component of 2-oxo-glutarate complex) (DLST) mRNA
26	13142	26029	0.81	7.0E-92	AB031007.1	NT	Homo sapiens DNA, MHC class I region, 7.1 ancestral haplotype
265	16870	26267	1.11	7.0E-92	AB018301.1	NT	Homo sapiens mRNA for KIAA0758 protein, partial cds
255	15870	26268	1.11	7.0E-92	AB018301.1	NT	Homo sapiens mRNA for KIAA0758 protein, partial cds
612	13677		1.34	7.0E-92	AF007822.1	NT	Homo sapiens cytoplasmic S-phase truncated isoform mRNA, complete cds
1308	14339	27287	0.8	7.0E-92	4502384	NT	Homo sapiens B-cell CLL/lymphoma 7b (BCL7B) mRNA
2302	15213	28215	1.33	7.0E-92	5031570	NT	Homo sapiens ARP2 (actin-related protein 2, yeast) homolog (ACTR2), mRNA
2202	15213	28216	1.33	7.0E-92	5031570	NT	Homo sapiens ARP2 (actin-related protein 2, yeast) homolog (ACTR2), mRNA
2599	15597	28592	1.79	7.0E-92	AF167706.1	NT	Homo sapiens cysine-rich repeat-containing protein S52 precursor, mRNA, complete cds
2772	16784	28756	1.86	7.0E-92	6005738	NT	Homo sapiens NRAS-related gene (D1S155E), mRNA

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Table 4  
Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2801	15790	28789	1	7.0E-92	AB031007.1	NT	Homo sapiens DNA, MHC class I region, 7.1 ancestral haplotype
3394	18401	29339	0.72	7.0E-92	4507500	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
3394	18401	29340	0.72	7.0E-92	4507500	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
4701	17706	30589	1.67	7.0E-92	S71824.1	NT	N-CAM=145 kDa neural cell adhesion molecule [human, small cell lung cancer cell line OS2-R, mRNA, 2880 nt]
4701	17706	30570	1.67	7.0E-92	S71824.1	NT	N-CAM=145 kDa neural cell adhesion molecule [human, small cell lung cancer cell line OS2-R, mRNA, 2880 nt]
5321	18305	31155	1.04	7.0E-92	4508118	NT	Homo sapiens prospero-related homeobox 1 (PROX1) mRNA
5442	18524	31249	4.92	7.0E-92	AA446208.1	EST_HUMAN	zw66d12.r1 Scarsa, testis_NHT Homo sapiens cDNA clone IMAGE:781175 5'
1610	14640		0.69	5.0E-92	BE390882.1	EST_HUMAN	601283012F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3605018 5'
5376	18358		0.96	4.0E-92	BE205792.1	EST_HUMAN	bb49502.x1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3009863 3' similar to TR:O28081 O28081 2-DEOXY-D-GLUCONATE 3-DEHYDROGENASE; contains Alu repetitive element;
2816	15805	28803	2.34	3.0E-92	BE009714.1	EST_HUMAN	601501242F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3602939 5'
4546	17555		0.94	3.0E-92	M10376.1	NT	Human endogenous retroviral DNA (4-1), complete retroviral segment
6091	19152	32288	7.97	3.0E-92	AA378336.1	EST_HUMAN	EST91020 Synovial sarcoma Homo sapiens cDNA 5' end similar to similar to ribosomal protein S13
11203	24129	37576	2	3.0E-92	X15804.1	NT	Human mRNA for alpha-actinin
11203	24129	37577	2	3.0E-92	X15804.1	NT	Human mRNA for alpha-actinin
27	13143	26030	1.67	2.0E-92	4501898	NT	Homo sapiens activin A receptor, type IIB (ACVR2B) mRNA
152	13252	26170	24.89	2.0E-92	AF154830.1	NT	Homo sapiens carbamyl phosphate synthetase I mRNA, complete cds
190	13288	26202	2.91	2.0E-92	11422948	NT	Homo sapiens hypothetical protein dJ462023.2 (DJ462023.2), mRNA
190	13288	26203	2.91	2.0E-92	11422948	NT	Homo sapiens hypothetical protein dJ462023.2 (DJ462023.2), mRNA
773	13830	26762	16.21	2.0E-92	BE289190.1	EST_HUMAN	60118337F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3028304 5'
773	13830	26763	16.21	2.0E-92	BE289190.1	EST_HUMAN	60118337F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3028304 5'
1743	14770		1.65	2.0E-92	S78653.1	NT	img-mas-related [human, Genotipic, 2416 nt]
1851	14971	27852	1.3	2.0E-92	AI818119.1	EST_HUMAN	wk27407.x1 NCL CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2413549 3' similar to TR:Q12844
1851	14971	27853	1.3	2.0E-92	AI818119.1	EST_HUMAN	Q12844 BREAKPOINT CLUSTER REGION PROTEIN ;
1978	14996	27990	0.95	2.0E-92	4507464	NT	wk27407.x1 NCL CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2413549 3' similar to TR:Q12844
1978	14996	27981	0.95	2.0E-92	4507464	NT	Q12844 BREAKPOINT CLUSTER REGION PROTEIN ;
2062	16078	28078	6.02	2.0E-92	4506860	NT	Homo sapiens transforming growth factor, beta 3 (TGFB3), mRNA
2707	15701	28696	34.53	2.0E-92	6912457	NT	Homo sapiens transforming growth factor, beta 3 (TGFB3), mRNA
3677	16710	29600	0.91	2.0E-92	AF231919.1	NT	Homo sapiens syndecan 4 (ampliglycan, ryudocan) (SDC4) mRNA
3677	16710	29601	0.91	2.0E-92	AF231919.1	NT	Homo sapiens calcineurin binding protein 1 (KIA0330), mRNA
3677	16710	29601	0.91	2.0E-92	AF231919.1	NT	Homo sapiens chromosome 21 unknown mRNA
3677	16710	29601	0.91	2.0E-92	AF231919.1	NT	Homo sapiens chromosome 21 unknown mRNA

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3752	16764	28673	7.66	2.0E-92	5903180	NT	Homo sapiens stress-induced-phosphoprotein 1 (Hsp70/Hsp90-organizing protein) (STIP1), mRNA
4385	17400	30268	1.33	2.0E-92	M10976.1	NT	Human endogenous retroviral DNA (4-1), complete retroviral segment
4888	17868	30732	0.67	2.0E-92	AF136523.1	NT	Homo sapiens bile acid export pump (BSEP) mRNA, complete cds
5115	18112		5.25	2.0E-92	AL040437.1	EST_HUMAN	DKFZp434C0414_r1 434 (synonym: hhes) Homo sapiens cDNA clone DKFZp434C0414 5'
5369	18351		0.97	2.0E-92	4759169	NT	Homo sapiens sterol regulatory element binding transcription factor 2 (SREBF2) mRNA
5967	19034	32155	0.73	2.0E-92	AF016635.1	NT	Homo sapiens P-glycoprotein (mdr1) mRNA, complete cds
6556	19598		2.77	2.0E-92	4504756	NT	Homo sapiens integrin, alpha L (enligin CD11A (p180), lymphocyte function-associated antigen 1; alpha polypeptide) (ITGAL) mRNA
6900	19930	33147	2.48	2.0E-92	AB028991.1	NT	Homo sapiens mRNA for KIAA1068 protein, partial cds
7876	20803		0.59	2.0E-92	U87780.1	NT	Human NPY Y1-like receptor pseudogene mRNA, complete cds
7808	20833		0.59	2.0E-92	U87780.1	NT	Human NPY Y1-like receptor pseudogene mRNA, complete cds
9414	22342	35707	1.41	2.0E-92	AW340174.1	EST_HUMAN	h02h02.x1 Soares NFL_T_G3C_S1 Homo sapiens cDNA clone IMAGE:2008371 3' similar to TR:002711
11199	24125	37571	6.13	2.0E-92	11434900	NT	Homo sapiens thyroid stimulating hormone receptor (TSHR), mRNA
11446	24362	37810	1.5	2.0E-92	11434759	NT	Homo sapiens zinc finger protein 198 (ZNF198), mRNA
11488	24398	37848	1.47	2.0E-92	5803103	NT	Homo sapiens male-specific lethal-3 (Drosophila)-like 1 (MSL3L1), mRNA
11894	24493	37981	1.57	2.0E-92	AW836290.1	EST_HUMAN	CM4-LT0026-161299-062-g06 LT0026 Homo sapiens cDNA
11884	24493	37982	1.57	2.0E-92	AW836290.1	EST_HUMAN	CM4-LT0026-161299-062-g06 LT0026 Homo sapiens cDNA
12770	25399	31810	4.67	2.0E-92	AB029016.1	NT	Homo sapiens mRNA for KIAA1093 protein, partial cds
13009	15701	28696	89.73	2.0E-92	6912457	NT	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA
1874	14895	27878	1.26	1.0E-92	R78078.1	EST_HUMAN	y80e08.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:145574 5'
1874	14895	27879	1.26	1.0E-92	R78078.1	EST_HUMAN	y80e08.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:145574 5'
2087	15101	28101	27.09	1.0E-92	4506688	NT	Homo sapiens ribosomal protein, large, P1 (RPLP1) mRNA
8922	21752	35098	0.65	1.0E-92	BE439625.1	EST_HUMAN	HTM1-288F HTM1 Homo sapiens cDNA
							ig01b02.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2107467 3' similar to SW:PTNF_HUMAN
9707	22832	36011	3.01	1.0E-92	A1300356.1	EST_HUMAN	Q16825 PROTEIN-TYROSINE PHOSPHATASE D1 ;contains Alu repetitive element;contains element
							MER17 repetitive element;
9707	22832	36012	3.01	1.0E-92	A1300356.1	EST_HUMAN	ig01b02.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2107467 3' similar to SW:PTNF_HUMAN
2042	15059	28060	2.7	9.0E-93	AU121681.1	EST_HUMAN	Q16825 PROTEIN-TYROSINE PHOSPHATASE D1 ;contains Alu repetitive element;contains element
							MER17 repetitive element;
2058	15073		9.46	9.0E-93	AA316723.1	EST_HUMAN	AU121681 MAMMAT1 Homo sapiens cDNA clone MAMMA1000738 5'
							EST188414 HCC cell line (metastasis to liver in mouse) II Homo sapiens cDNA 5' end similar to ribosomal protein L29

Table 4

## Single Exon Probes Expressed In Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2695	15689		2.12	9.0E-93	AF223391.1	NT	Homo sapiens calcium channel $\alpha$ 1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced
3679	16712	28603	1.1	9.0E-93	BE388571.1	EST_HUMAN	601281867F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3603832 5'
12074	24915		8.72	9.0E-93	11418528	NT	Homo sapiens ribosomal protein L10a (RPL10A), mRNA
6712	19748	32951	0.42	8.0E-93	AW014042.1	EST_HUMAN	U1H-B10-aah-h-08-0-U1a1 NCL_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2709371 3'
6712	19748	32952	0.42	8.0E-93	AW014042.1	EST_HUMAN	U1H-B10-aah-h-08-0-U1a1 NCL_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2709371 3'
6876	19907	33122	3.08	8.0E-93	BF036364.1	EST_HUMAN	601460521F1 NIH_MGC_88 Homo sapiens cDNA clone IMAGE:3663908 5'
266	13360	28276	6.07	7.0E-93	AF231919.1	NT	Homo sapiens chromosome 21 unknown mRNA
6213	19268	32419	0.44	6.0E-93	11450204	NT	Homo sapiens hypothetical protein FLJ10897 (FLJ10897), mRNA
6213	19268	32420	0.44	6.0E-93	11450204	NT	Homo sapiens hypothetical protein FLJ10897 (FLJ10897), mRNA
6977	20004	33236	1.12	6.0E-93	AB033093.1	NT	Homo sapiens mRNA for KIAA1267 protein, partial cds
7245	20154	33394	1.24	6.0E-93	AF095771.1	NT	Homo sapiens PTH-responsive osteosarcoma B1 protein (B1) mRNA, complete cds
1408	14439	27393	1.26	5.0E-93	AB014511.1	NT	Homo sapiens mRNA for KIAA0911 protein, partial cds
1432	14463	27416	2.43	5.0E-93	AI674184.1	EST_HUMAN	wc09c08.x1 NCL_CGAP_P28 Homo sapiens cDNA clone IMAGE:2314670 3'
1432	14463	27417	2.43	5.0E-93	AI674184.1	EST_HUMAN	wc09c08.x1 NCL_CGAP_P28 Homo sapiens cDNA clone IMAGE:2314670 3'
1493	14524		0.97	5.0E-93	AL163201.2	NT	Homo sapiens chromosome 21 segment HS21C001
3280	18328	28233	2.06	5.0E-93	X04201.1	NT	Human skeletal muscle 1.3 kb mRNA for tropomyosin
3978	17006	29894	1.01	5.0E-93	8973209	NT	Homo sapiens hypothetical protein FLJ20220 (FLJ20220), mRNA
6010	18073	32199	1.01	5.0E-93	M22878.1	NT	Human somatic cytochrome c (HC1) processed pseudogene, complete cds
6347	18397		1.33	5.0E-93	AF045565.1	NT	Homo sapiens wbc01 (WBC01) and wbc06 (WBC06) genes, complete cds, alternatively spliced and replication factor C subunit 2 (RF-C2) gene, complete cds
8174	21081	34411	3.39	5.0E-93	AF067136.1	NT	Homo sapiens protein phosphatase-1 regulatory subunit 7 (PPP1R7) gene, exon 11, complete cds and alternatively spliced product
8166	22094	35462	0.79	5.0E-93	4557528	NT	Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2) mRNA
9166	22094	35463	0.79	5.0E-93	4557528	NT	Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2) mRNA
10149	23040	36439	2.26	5.0E-93	AF274993.1	NT	Homo sapiens secretory pathway component Sec31B-1 mRNA, alternatively spliced, complete cds
10323	23212	36524	1.08	5.0E-93	5032168	NT	Homo sapiens TAR (HIV) RNA-binding protein 1 (TARBP1) mRNA
10572	23456	36878	1.31	5.0E-93	AF089313.2	NT	Homo sapiens WSB1 protein (WSB1) mRNA, complete cds
11264	24187	37536	2.87	5.0E-93	11439559	NT	Homo sapiens nucleobindin 2 (NUCB2), mRNA
12678	26621	31724	2.04	5.0E-93	11417877	NT	Homo sapiens gamma-glutamyltransferase 1 (GGT1), mRNA
90	13203		6.04	4.0E-93	AA459933.1	EST_HUMAN	zx50e09.s1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:785688 3' similar to SW:CLPA_RAT P37397 CALPONIN, ACIDIC ISOFORM;
487	13538	26460	1.62	4.0E-93	4557679	NT	Homo sapiens interferon gamma receptor 1 (IFNGR1) mRNA

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
467	13538	26461	1.62	4.0E-93	4667879	NT	Homo sapiens interferon gamma receptor 1 (FNGR1) mRNA
768	13833	26788	1.44	4.0E-93	7657454	NT	Homo sapiens pascadillo (zabrafish) homolog 1, containing BRC1 domain (PES1), mRNA
768	13833	26789	1.44	4.0E-93	7657454	NT	Homo sapiens pascadillo (zabrafish) homolog 1, containing BRC1 domain (PES1), mRNA
1211	14249	27160	1.44	4.0E-93	8923658	NT	Homo sapiens hypothetical protein FLJ20731 (FLJ20731), mRNA
1893	15011	28001	3.63	4.0E-93	AF047677.1	NT	Homo sapiens dystrophin (DMD) gene, deletion breakpoints 1-3 in Intron 6
2850	15645	28645	2.18	4.0E-93	7656972	NT	Homo sapiens TNF-inducible protein CG12-1 (CG12-1), mRNA
3626	16692	29562	0.83	4.0E-93	7705396	NT	Homo sapiens tumor antigen SLP-8p (HOC8), mRNA
4132	17154	30031	2	4.0E-93	4504654	NT	Homo sapiens interleukin 18 receptor 1 (IL18R1) mRNA
5150	16692	29562	0.69	4.0E-93	7705396	NT	Homo sapiens tumor antigen SLP-8p (HOC8), mRNA
5840	18911	32027	4.31	4.0E-93	T48864.1	EST_HUMAN	y94c12.1 Stragene liver (#937224) Homo sapiens cDNA clone IMAGE:78838 5' similar to similar to SP-A44391 A44391 SERUM RESPONSE ELEMENT-BINDING PROTEIN SRE-ZBP - HUMAN
11573	24482	37950	5.62	4.0E-93	AV692051.1	EST_HUMAN	AV692051 GKHC Homo sapiens cDNA clone GKCDRF07 5'
3720	16752	29639	2.96	3.0E-93	BF690630.1	EST_HUMAN	602246554F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4332036 5'
3720	16752	29640	2.96	3.0E-93	BF690630.1	EST_HUMAN	602246554F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4332036 5'
4335	17348		1.6	3.0E-93	AF225886.1	NT	Homo sapiens tensin mRNA, complete cds
6844	19876	33091	1.21	3.0E-93	11426182	NT	Homo sapiens GCN5 (general control of amino-acid synthesis, yeast, homolog)-like 2 (GCN5L2), mRNA
11240	24186	37612	3.7	3.0E-93	AI824829.1	EST_HUMAN	wb02d05.x1 NCL_CGAP_G08 Homo sapiens cDNA clone IMAGE:2304489 3'
203	13302	26217	7.85	2.0E-93	AB015810.1	NT	Chlorocebus aethiops mRNA for ribosomal protein S4X, complete cds
203	13302	26218	7.85	2.0E-93	AB015810.1	NT	Chlorocebus aethiops mRNA for ribosomal protein S4X, complete cds
343	13433	26348	8.36	2.0E-93	AL163285.2	NT	Homo sapiens chromosome 21 segment HS21C085
344	13433	26348	7.2	2.0E-93	AL163285.2	NT	Homo sapiens chromosome 21 segment HS21C085
1638	14669	27632	2.36	2.0E-93	AF225896.1	NT	Homo sapiens tensin mRNA, complete cds
2144	15167	28169	1.07	2.0E-93	U40763.1	NT	Human Cdk-associated RS cyclophilin CARS-Cyp mRNA, complete cds
2509	15510	28513	1.06	2.0E-93	BE252982.1	EST_HUMAN	601117586F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3358220 5'
5602	18678	31568	5.39	2.0E-93	AW984365.1	EST_HUMAN	EST376458 IMAGE ressequences, MAGH Homo sapiens cDNA
5613	18689	31584	0.6	2.0E-93	4758153	NT	Homo sapiens defensin, autosomal dominant 5 (DFNA5), mRNA
5733	18800		0.75	2.0E-93	BF351459.1	EST_HUMAN	QV3-HT0513-290300-126-h04 HT0513 Homo sapiens cDNA
5833	18904	32019	1.55	2.0E-93	11430039	NT	Homo sapiens hypothetical protein (LOC51318), mRNA
5848	18919	32033	0.58	2.0E-93	U74313.1	EST_HUMAN	HSU74313 Human chromosome 14 Homo sapiens cDNA clone 1-86
6880	20007		1.3	2.0E-93	AW602002.1	EST_HUMAN	UHF-ENO-aks-g-09-Q-UJ11 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078328 5'
12655	25328		2.39	2.0E-93	L41825.1	NT	Homo sapiens CYP17 gene, 5' end
12900	25488		5.72	2.0E-93	BF035327.1	EST_HUMAN	601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5'

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
106	13219	26131	5.79	1.0E-93	AF238997.1	NT	Homo sapiens CTR1 pseudogene
106	13219	26132	5.79	1.0E-93	AF238997.1	NT	Homo sapiens CTR1 pseudogene
541	13610	26520	14.12	1.0E-93	7657018	NT	Homo sapiens hypothetical protein (DJ328E19.C1.1), mRNA ox84b08.x1 NCICGAP_GLL1 Homo sapiens cDNA clone IMAGE:1672503 3' similar to TR:Q62384 Q62384
621	13686	26589	4.04	1.0E-93	AI146755.1	EST_HUMAN	ZINC FINGER PROTEIN. ;
897	13950	26897	6.3	1.0E-93	D87675.1	NT	Homo sapiens DNA for amyloid precursor protein, complete cds
1195	14234	27173	0.89	1.0E-93	4503872	NT	Homo sapiens glutamate decarboxylase 1 (brain, 67kD) (GAD1), transcript variant GAD87, mRNA
1265	14289	27245	5.85	1.0E-93	8923270	NT	Homo sapiens hypothetical protein FLJ20291 (FLJ20291), mRNA
1265	14296	27246	5.89	1.0E-93	8923270	NT	Homo sapiens hypothetical protein FLJ20291 (FLJ20291), mRNA
1374	14408	27359	1.52	1.0E-93	AF167706.1	NT	Homo sapiens cysteine-rich repeat-containing protein S62 precursor, mRNA, complete cds
2360	15367	28371	1.19	1.0E-93	AF231981.1	NT	Homo sapiens long chain polyunsaturated fatty acid elongation enzyme (HELO1) mRNA, complete cds
2487	15459	28490	3.96	1.0E-93	AF055066.1	NT	Homo sapiens MHC class 1 region
2532	15533	27301	0.97	1.0E-93	AL137200.1	NT	Novel human gene mapping to chromosome 1
2870	14355	27302	1.81	1.0E-93	BE297369.1	EST_HUMAN	601177686F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532865 5'
2870	14355	27302	1.81	1.0E-93	BE297369.1	EST_HUMAN	601177686F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532865 5'
2976	16028	28930	1.19	1.0E-93	D87675.1	NT	Homo sapiens DNA for amyloid precursor protein, complete cds
3262	16310		1.27	1.0E-93	AF231981.1	NT	Homo sapiens long chain polyunsaturated fatty acid elongation enzyme (HELO1) mRNA, complete cds
4538	17545	30408	1.87	1.0E-93	AL103284.2	NT	Homo sapiens chromosome 21 segment HS21C084
6768	18831	31631	2.06	1.0E-93	U78509.1	NT	Homo sapiens glucocorticoid receptor (GRL) gene, intron D, exon 5, and intron E
5758	18831	31632	2.06	1.0E-93	U78509.1	NT	Homo sapiens glucocorticoid receptor (GRL) gene, intron D, exon 5, and intron E
5973	19039	32161	0.94	1.0E-93	AF227138.1	NT	Homo sapiens candidate taste receptor, T2R14 gene, complete cds
6137	19196	32334	8.81	1.0E-93	4557792	NT	Homo sapiens neurofibromin 1 (neurofibromatosis, von Recklinghausen disease, Watson disease) (NF1) mRNA
6438	19485	32681	0.9	1.0E-93	7662241	NT	Homo sapiens KIAA0872 gene product (KIAA0872), mRNA
7100	20308	33685	2.19	1.0E-93	11431590	NT	Homo sapiens protein kinase C, beta 1 (PRKCB1), mRNA
7621	20556	33850	3.47	1.0E-93	D42072.1	NT	Human mRNA for NF1 N-isoform-exon11, complete cds
8830	21766	35113	2.04	1.0E-93	AB037832.1	NT	Homo sapiens mRNA for KIAA1411 protein, partial cds
9107	22035	35389	1.33	1.0E-93	Y10183.1	NT	H. sapiens mRNA for MEMD protein
9208	22136	35493	1.58	1.0E-93	AF182032.1	NT	Homo sapiens protein kinase inhibitor gamma (PKIG) mRNA, complete cds
9575	22502	35865	0.65	1.0E-93	AB023228.1	NT	Homo sapiens mRNA for KIAA1011 protein, partial cds
9575	22502	35866	0.65	1.0E-93	AB023228.1	NT	Homo sapiens mRNA for KIAA1011 protein, partial cds
9884	21342	34677	2.49	1.0E-93	AB040918.1	NT	Homo sapiens mRNA for KIAA1485 protein, partial cds



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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
9988	21346	34681	1.21	1.0E-93	AF091395.1	NT	Homo sapiens Trio isoform mRNA, complete cds
10116	23007	36401	4.95	1.0E-93	X13474.1	NT	Human PreA4 gene for Alzheimer's disease A4 amyloid protein precursor (exon 9)
10116	23007	36402	4.95	1.0E-93	X13474.1	NT	Human PreA4 gene for Alzheimer's disease A4 amyloid protein precursor (exon 9)
10246	23137	36542	0.74	1.0E-93	AL049801.1	NT	Novel human gene mapping to chromosome 13, similar to rat RhoGAP
10643	23628	36962	0.67	1.0E-93	11439346	NT	Homo sapiens Ryanodine receptor 3 (RYR3), mRNA
12286	25719	31668	1.85	1.0E-93	AI268262.1	EST_HUMAN	qm03c12.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1880758 3' similar to WP: T1084.4 CE13742;
12812	25434		2.33	1.0E-93	AJ230125.1	NT	Homo sapiens GGT1 gene, exon 1
12895	25485		3.64	1.0E-93	11417856	NT	Homo sapiens glutathione S-transferase theta 2 (GSTT2), mRNA
13048	25941		2.21	1.0E-93	AF240788.1	NT	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds
11064	23948		1.39	8.0E-94	AL163209.2	NT	Homo sapiens chromosome 21 segment HS21C009
4043	17072	28958	1.85	6.0E-94	AF142482.1	NT	Homo sapiens transcription enhancer factor-5 mRNA, complete cds
5552	18630	31508	3.94	5.0E-94	AB014512.1	NT	Homo sapiens mRNA for KIAA0612 protein, partial cds
5552	18630	31509	3.94	5.0E-94	AB014512.1	NT	Homo sapiens mRNA for KIAA0612 protein, partial cds
6283	19334	32600	18.24	5.0E-94	AA722434.1	EST_HUMAN	zg97g06.s1 Soares_fetal_heart_NBHH19W Homo sapiens cDNA clone IMAGE:409594 3'
7354	20350	33617	1.39	5.0E-94	AI015800.1	EST_HUMAN	ci83c05.s1 Soares_fetal_fetus_Nb2H-F8_gw Homo sapiens cDNA clone IMAGE:1623369 3'
9198	22126	35482	0.98	5.0E-94	BF528115.1	EST_HUMAN	G02042103F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4180023 5'
11410	24326	37775	1.96	5.0E-94	11423962	NT	Homo sapiens adenylylate kinase 2 (AK2), mRNA
12555	25946	31375	3.09	5.0E-94	T80308.1	EST_HUMAN	Y498004.s1 Soares_fetal_liver_spleen_1NFLS Homo sapiens cDNA clone IMAGE:116239 3'
13063	25589		1.6	5.0E-94	D25217.2	NT	Homo sapiens mRNA for KIAA0027 protein, partial cds
1867	14889		5.75	4.0E-94	L05094.1	NT	Homo sapiens ribosomal protein L27 mRNA, complete cds
3739	16771	29657	1.11	4.0E-94	AW197851.1	EST_HUMAN	xn89f12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2701678 3'
3739	16771	29658	1.11	4.0E-94	AW197851.1	EST_HUMAN	xn89f12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2701678 3'
4831	17832	30702	3.28	4.0E-94	AI591312.1	EST_HUMAN	txv11f10.x1 NCI_CGAP_Brn52 Homo sapiens cDNA clone IMAGE:2289403 3' similar to TR:Q15285 Q15285 PROTEIN TYROSINE PHOSPHATASE ;
6741	19775	32987	1.64	4.0E-94	11440870	NT	Homo sapiens solute carrier family 22 (organic cation transporter), member 1-like (SLC22A1L), mRNA
6741	19775	32988	1.64	4.0E-94	11440870	NT	Homo sapiens solute carrier family 22 (organic cation transporter), member 1-like (SLC22A1L), mRNA
7240	20149		1.04	4.0E-94	L27386.1	NT	Homo sapiens huntingtin (HD) gene, exon 37
11548	24457	37920	1.46	4.0E-94	AB004928.1	NT	Homo sapiens gene for Smead 3, exon 8
11887	23987	37425	1.41	4.0E-94	11545782	NT	Homo sapiens hypothetical protein FLJ12455 (FLJ12455), mRNA

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
12177	25013	38518	10.28	4.0E-94	4507822	NT	Homo sapiens UDP glycosyltransferase 2 family, polypeptide B11 (UGT2B11) mRNA
634	13695	26600	1.37	3.0E-94	AB022786.1	NT	Homo sapiens ASH2L gene, complete cds, similar to Drosophila ash2 gene
744	13802	28726	12.12	3.0E-94	4502508	NT	Homo sapiens complement component 5 (C5) mRNA
1768	14704	27764	1.98	3.0E-94	AF167706.1	NT	Homo sapiens cysteine-rich repeat-containing protein S62 precursor, mRNA, complete cds
1769	14784	27765	1.98	3.0E-94	AF167706.1	NT	Homo sapiens cysteine-rich repeat-containing protein S62 precursor, mRNA, complete cds
1797	14823	27791	2.94	3.0E-94	4557558	NT	Homo sapiens E1A binding protein p300 (EP300) mRNA
2094	15108	28110	1.05	3.0E-94	11427779	NT	Homo sapiens hepatic leukemia factor (HLF), mRNA
2094	15108	28111	1.05	3.0E-94	11427779	NT	Homo sapiens hepatic leukemia factor (HLF), mRNA
4285	17299	30166	0.77	3.0E-94	AA464805.1	EST_HUMAN	zw83g08.r1 Soares, fetal testis N52HF8_9w Homo sapiens cDNA clone IMAGE:774782 5'
4422	17433	30294	0.78	3.0E-94	AA781836.1	EST_HUMAN	ai59h06.s1 Soares, testis_NHT Homo sapiens cDNA clone 1375163 3'
5878	18947	32084	4.02	3.0E-94	11496268	NT	Homo sapiens zinc finger protein 277 (ZNF277), mRNA
6391	19440	32607	1.17	3.0E-94	AB011536.1	NT	Homo sapiens mRNA for MEGF2, partial cds
6722	19758	32895	4.23	3.0E-94	11526228	NT	Homo sapiens chromosome 21 open reading frame 18 (C21ORF18), mRNA
8290	21194	34531	0.4	3.0E-94	4826883	NT	Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA
8777	21707	35063	1.02	3.0E-94	AF152309.1	NT	Homo sapiens protocadherin alpha 13 (PCDH-alpha13) mRNA, complete cds
9149	22077	36438	5.3	3.0E-94	AB014579.1	NT	Homo sapiens mRNA for KIAA0079 protein, partial cds
10120	23011	39408	5.12	3.0E-94	AF087942.1	NT	Homo sapiens glycogenin-1L mRNA, complete cds
11544	24453	37918	1.8	3.0E-94	4757821	NT	Homo sapiens axonal transport of synaptic vesicles (ATSV) mRNA
12061	24902	38405	3.18	3.0E-94	11436925	NT	Homo sapiens anaphase-promoting complex 10 (APC10), mRNA
12104	24945	38448	2.06	3.0E-94	U28711.1	NT	Human cbl-b truncated form 1 lacking leucine zipper mRNA, complete cds
10273	23163	36574	0.73	2.0E-94	AI010393.1	EST_HUMAN	w30h1.1.x1 NCI_CGAP_Cot16 Homo sapiens cDNA clone IMAGE:2391813 3'
10273	23163	36575	0.73	2.0E-94	AI010393.1	EST_HUMAN	w30h1.1.x1 NCI_CGAP_Cot16 Homo sapiens cDNA clone IMAGE:2391813 3'
159	13259	28177	1.45	1.0E-94	BE285714.1	EST_HUMAN	601175762F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531038 5'
3138	16188	29080	2.44	1.0E-94	BE253433.1	EST_HUMAN	601111696F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3352569 5'
3138	16188	29081	2.44	1.0E-94	BE253433.1	EST_HUMAN	601111696F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3352569 5'
6308	19368	32629	0.65	1.0E-94	AE000269.1	NT	Escherichia coli K-12 MG1655 section 159 of 400 of the complete genome
6518	19562	32743	0.72	1.0E-94	AL040518.1	EST_HUMAN	DKFZp434G0314_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434G0314 5'
6527	19571	32754	0.64	1.0E-94	H08270.1	EST_HUMAN	y87102.r1 Soares infant brain T118 Homo sapiens cDNA clone IMAGE:45033 5'
6787	19830	33040	0.62	1.0E-94	AV725992.1	EST_HUMAN	AV725992 HTC Homo sapiens cDNA clone HTCBEP05 5'
9798	22762	36147	2.3	1.0E-94	11428710	NT	Homo sapiens paired box gene 5 (B-cell lineage specific activator protein) (PAX5), mRNA
10306	23196	36606	1.83	1.0E-94	BE780478.1	EST_HUMAN	601468748F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3872099 5'
11505	24415	37869	3.56	1.0E-94	U65590.1	NT	Homo sapiens IL-1 receptor antagonist IL-1Ra (IL-1RN) gene, alternatively spliced forms, complete cds

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11762	24953	38148	2.42	1.0E-04	AI272244.1	EST_HUMAN	ap22e02.x1 Schiller oligodendrogloma Homo sapiens cDNA clone IMAGE:1956122 3' similar to TR:Q62845
12688	13258	26177	1.57	1.0E-04	BE285714.1	EST_HUMAN	Q62845 NEURAL CELL ADHESION PROTEIN BIG-2 PRECURSOR ;
12932	13259	26177	2.02	1.0E-04	BE285714.1	EST_HUMAN	601175762F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531038 5'
1495	14528	27488	1.96	9.0E-05	AF027302.1	NT	601175762F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531038 5'
3199	16247	29142	1.25	9.0E-05	7662027	NT	Homo sapiens TNF-alpha stimulated ABC protein (ABC50) mRNA, complete cds
3199	16247	29143	1.25	9.0E-05	7662027	NT	Homo sapiens KIAA0255 gene product (KIAA0255), mRNA
5580	18356	31543	1.22	9.0E-05	X82568.1	NT	M.musculus glyt1 gene (exons 1c and 2)
5590	18556	31544	1.22	9.0E-05	X82568.1	NT	M.musculus glyt1 gene (exons 1c and 2)
8827	21757	35101	1.71	9.0E-05	AF274753.1	NT	Homo sapiens progressive ankylosis-like protein (ANK) mRNA, complete cds
154	13254	26172	12.12	8.0E-05	AF154830.1	NT	Homo sapiens carbamyl phosphate synthetase 1 mRNA, complete cds
7280	20233	33483	0.8	8.0E-05	11410376	NT	Homo sapiens KIAA0193 gene product (KIAA0193), mRNA
7611	20546	33638	1.62	8.0E-05	11426529	NT	Homo sapiens proteasome (prosome, macropain) 26S subunit, non-ATPase, 11 (PSMD11), mRNA
7611	20546	33639	1.62	8.0E-05	11426529	NT	Homo sapiens proteasome (prosome, macropain) 26S subunit, non-ATPase, 11 (PSMD11), mRNA
8775	21705	35050	2.05	8.0E-05	AF032897.1	NT	Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds
9904	22882	36277	2.2	8.0E-05	11420944	NT	Homo sapiens KIAA0255 gene product (KIAA0255), mRNA
9904	22892	36278	2.2	8.0E-05	11420944	NT	Homo sapiens KIAA0255 gene product (KIAA0255), mRNA
10392	23251	36871	3.15	8.0E-05	5174644	NT	Homo sapiens proline dehydrogenase (proline oxidase) (PRODH) mRNA
10391	23280		3.34	8.0E-05	AB037816.1	NT	Homo sapiens mRNA for KIAA1395 protein, partial cds
10730	23616	37043	0.75	8.0E-05	5845523	NT	Homo sapiens early growth response 2 (Krox-20 (Drosophila) homolog) (EGR2), mRNA
11165	24085	37532	1.58	8.0E-05	AF112152.1	NT	Homo sapiens developmental arteries and neural crest EGF-like protein mRNA, complete cds
11915	24762	38259	1.42	8.0E-05	10884024	NT	Homo sapiens HCF-binding transcription factor Zhangfai (ZF), mRNA
12863	25469		26.36	8.0E-05	AA928056.1	EST_HUMAN	zu84b01.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:744649 3' similar to contains L1.11 L1
295	13389	26308	6.44	7.0E-05	D87675.1	NT	repetitive element ;
295	13389	26307	6.44	7.0E-05	D87675.1	NT	Homo sapiens DNA for amyloid precursor protein, complete cds
4473	17484	30344	5.63	7.0E-05	M95708.1	NT	Homo sapiens DNA for amyloid precursor protein, complete cds
4521	17530		0.83	7.0E-05	AL163246.2	NT	Homo sapiens Lys-like protein (CD59) mRNA, complete cds
5183	18175	31020	1.02	7.0E-05	M95929.1	NT	Homo sapiens chromosome 21 segment HS21C046
9758	22862	36068	0.63	4.0E-05	BE439625.1	EST_HUMAN	Human homeobox protein (PHOX1) mRNA, 3' end
223	13322	26238	15.59	3.0E-05	AV648361.1	EST_HUMAN	HTM1-288F HTM1 Homo sapiens cDNA
5628	18704	31603	1.98	3.0E-05	BF526041.1	EST_HUMAN	AV648361 GLO Homo sapiens cDNA clone GLOBF01 3'
5871	25934	32057	0.7	3.0E-05	AA412321.1	EST_HUMAN	602071146F1 NCL_CGAP_Brno4 Homo sapiens cDNA clone IMAGE:4214147 5'
7528	20467	33755	1.72	3.0E-05	AA412321.1	EST_HUMAN	Homo sapiens dedicator of cyto-kinesis 1 (DOCK1) mRNA

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
7528	20487	33756	1.72	3.0E-95	AA412321.1	EST_HUMAN	z97d01.r1 Soares_faslig_NHT Homo sapiens cDNA clone IMAGE:730273 5'
7760	20690	33938	1.29	3.0E-95	AW958121.1	EST_HUMAN	EST370191 MAGE resequences, MAGE Homo sapiens cDNA
7760	20690	33939	1.29	3.0E-95	AW958121.1	EST_HUMAN	EST370191 MAGE resequences, MAGE Homo sapiens cDNA
9893	22808	36196	1.9	3.0E-95	7662289	NT	Homo sapiens KIAA0763 gene product (KIAA0763), mRNA
9893	22808	36197	1.5	3.0E-95	7662289	NT	Homo sapiens KIAA0763 gene product (KIAA0763), mRNA
10267	23167	36568	0.81	3.0E-95	BF213446.1	EST_HUMAN	601845212F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4070451 5'
11316	24235	37680	1.79	3.0E-95	R83180.1	EST_HUMAN	yp87g11.r1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:194468 5'
965	14016	26959	5.54	2.0E-95	4504374	NT	Homo sapiens H factor 1 (complement) (HF1) mRNA
1671	14701	27661	1.84	2.0E-95	7662027	NT	Homo sapiens KIAA0255 gene product (KIAA0255), mRNA
1671	14701	27662	1.84	2.0E-95	7662027	NT	Homo sapiens KIAA0255 gene product (KIAA0255), mRNA
1956	14975	27958	5.45	2.0E-95	4507512	NT	Homo sapiens tissue inhibitor of metalloproteinase 3 (Sorsby fundus dystrophy, pseudoinflammatory) (TIMP3) mRNA
1959	14978	27992	1.79	2.0E-95	BE393873.1	EST_HUMAN	601312161F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3658862 5'
2450	15454	28450	1.23	2.0E-95	5453665	NT	Homo sapiens G protein-coupled receptor 19 (GPR19) mRNA
2450	15454	28451	1.23	2.0E-95	5453665	NT	Homo sapiens G protein-coupled receptor 19 (GPR19) mRNA
2489	15491	28491	3.86	2.0E-95	AF240786.1	NT	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds
2539	15559	28538	2.58	2.0E-95	4768423	NT	Homo sapiens glycine cleavage system protein H (aminomethyl carrier) (GCSH) mRNA
2863	14015	26958	13.24	2.0E-95	4504374	NT	Homo sapiens H factor 1 (complement) (HF1) mRNA
3200	16248	29144	1.97	2.0E-95	AF015452.1	NT	Homo sapiens Usurph-gamma mRNA, complete cds
3623	16659	29558	4.18	2.0E-95	7705900	NT	Homo sapiens unconventional myosin-15 (LOC51168), mRNA
3623	16659	29558	4.18	2.0E-95	7705900	NT	Homo sapiens unconventional myosin-15 (LOC51168), mRNA
3682	16715	29606	1.27	2.0E-95	AB037807.1	NT	Homo sapiens mRNA for KIAA1386 protein, partial cds
3813	16843	29729	0.68	2.0E-95	AI290284.1	EST_HUMAN	qm01c02.x1 Soares_NhMPu_S1 Homo sapiens cDNA clone IMAGE:1880546 3' similar to WP:T23G7.4 CE03705 ;
4469	17480	30339	1.16	2.0E-95	7667185	NT	Homo sapiens hypothetical protein (HS322B1A), mRNA
5169	18181	31009	3.08	2.0E-95	7661678	NT	Homo sapiens KIAA0187 gene product (KIAA0187), mRNA
5668	18742	31651	5.72	2.0E-95	7705764	NT	Homo sapiens CGI-48 protein (LOC51096), mRNA
5668	18742	31652	5.72	2.0E-95	7705764	NT	Homo sapiens CGI-48 protein (LOC51096), mRNA
5896	18965	32082	1.2	2.0E-95	11225008	NT	Homo sapiens angiotensin I converting enzyme (peptidyl-dipeptidase A) 2 (ACE2), mRNA
5896	18965	32083	1.2	2.0E-95	11225008	NT	Homo sapiens angiotensin I converting enzyme (peptidyl-dipeptidase A) 2 (ACE2), mRNA
5940	19007	32127	0.67	2.0E-95	11525883	NT	Homo sapiens membrane protein, palmitoylated 3 (MAGUK p55 subfamily member 3) (MPP3), mRNA
6382	19431	32599	3.74	2.0E-95	M89724.1	NT	Human muscle-type phosphofructokinase (PFK-M) gene, exon 7

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6720	19756	32962	0.87	2.0E-95	11427182	NT	Homo sapiens transcription factor 2, hepatic; LF-B3; variant hepatic nuclear factor (TCF2), mRNA
6720	19756	32963	0.87	2.0E-95	11427182	NT	Homo sapiens transcription factor 2, hepatic; LF-B3; variant hepatic nuclear factor (TCF2), mRNA
6852	19884	33098	2.63	2.0E-95	AF257737.1	NT	Homo sapiens ciliary dynein heavy chain 9 (DNAH9), mRNA, complete cds
7060	20275	33530	1.38	2.0E-95	11435773	NT	Homo sapiens huntingtin (Huntington disease) (HD), mRNA
6685	22611	35685	0.92	2.0E-95	11421795	NT	Homo sapiens ribophorin II (RPN2), mRNA
10869	23755	37182	0.55	2.0E-95	11434330	NT	Homo sapiens KIAA1065 protein (KIAA1065), mRNA
11166	24094	37542	1.9	2.0E-95	4757653	NT	Homo sapiens bone morphogenetic protein receptor, type IA (BMPRI1), mRNA
12123	24984	38468	1.59	2.0E-95	7662289	NT	Homo sapiens KIAA0763 gene product (KIAA0763), mRNA
12123	24994	38469	1.59	2.0E-95	7662289	NT	Homo sapiens KIAA0763 gene product (KIAA0763), mRNA
12642	25318	31821	2.64	2.0E-95	AF240788.1	NT	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds
12744	25384		1.52	2.0E-95	11417860	NT	Homo sapiens hypothetical protein (HS322B1A), mRNA
13010	25538	31759	5.79	2.0E-95	11418104	NT	Homo sapiens adenylosuccinate lyase (ADSL), mRNA
5809	18881	31988	8.43	1.0E-95	AA284651.1	EST_HUMAN	z23h04.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:714007 5' similar to TR:G1067084 G1067084 F55H2.6;
5809	18881	31988	8.43	1.0E-95	AA284651.1	EST_HUMAN	z23h04.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:714007 5' similar to TR:G1067084 G1067084 F55H2.6;
7937	20859	34167	4.82	1.0E-95	BF370000.1	EST_HUMAN	RC8-FN0019-290600-011-G11 FN0019 Homo sapiens cDNA
7937	20859	34168	4.82	1.0E-95	BF370000.1	EST_HUMAN	RC8-FN0019-290600-011-G11 FN0019 Homo sapiens cDNA
9906	22813	36203	0.65	1.0E-95	R17806.1	EST_HUMAN	RC8-FN0019-290600-011-G11 FN0019 Homo sapiens cDNA
8772	21702	36048	1.70	0.0E-96	BE897259.1	EST_HUMAN	y09b06.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:31763 5'
465	15874	26437	0.69	8.0E-96	BE907607.1	EST_HUMAN	601437232F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3922423 5'
465	15874	26438	0.69	8.0E-96	BE907607.1	EST_HUMAN	601437232F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3922423 5'
465	15874	26437	0.69	8.0E-96	BE907607.1	EST_HUMAN	601437232F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3922423 5'
465	15874	26438	0.69	8.0E-96	BE907607.1	EST_HUMAN	601437232F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3922423 5'
6701	18774		2.77	8.0E-96	AW836047.1	EST_HUMAN	PM0-L70019-090300-002-d09 L70019 Homo sapiens cDNA
3983	17011	29899	0.83	7.0E-96	AF231920.1	NT	Homo sapiens chromosome 21 (unknown mRNA)
3363	16407	29308	0.65	6.0E-96	AL163201.2	NT	Homo sapiens chromosome 21 segment HS21C001
3541	16579	29482	3.39	6.0E-96	M25873.1	NT	Human glyceraldehyde-3-phosphate dehydrogenase pseudogene 3'end
5835	16906	32021	0.65	6.0E-96	11422642	NT	Homo sapiens sialyltransferase 6 (N-acetylglucosaminide alpha 2,3-sialyltransferase) (SIAT6), mRNA
11978	24821	38314	2.6	6.0E-96	7662289	NT	Homo sapiens KIAA0763 gene product (KIAA0763), mRNA
11978	24821	38315	2.6	6.0E-96	7662289	NT	Homo sapiens KIAA0763 gene product (KIAA0763), mRNA
12021	24863	38364	2.51	6.0E-96	8923393	NT	Homo sapiens myosin, heavy polypeptide 2, skeletal muscle, adult (MYH2), mRNA
340	13430	26344	2.83	5.0E-96	AB032988.1	NT	Homo sapiens mRNA for KIAA1172 protein, partial cds
867	13920	26865	3.73	5.0E-96	AB032988.1	NT	Homo sapiens mRNA for KIAA1172 protein, partial cds

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
887	13920	28866	3.73	5.0E-96	AB032998.1	NT	Homo sapiens mRNA for KIAA1172 protein, partial cds
2883	15659		1.6	5.0E-96	11416767	NT	Homo sapiens phosphodiesterase 6A, cGMP-specific, rod, alpha (PDE6A), mRNA
3073	16129	29023	0.93	5.0E-96	6912735	NT	Homo sapiens transient receptor potential channel 5 (TRPC5), mRNA
4018	17045	29935	1.18	5.0E-96	4758367	NT	Homo sapiens fibroblast growth factor 14 (FGF14) mRNA
5012	18010		1.13	5.0E-96	X60812.1	NT	H. sapiens DNA for monamine oxidase type A (7) (partial)
6942	19971	33184	0.99	5.0E-96	AF149773.1	NT	Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3
7009	20036	33289	0.5	5.0E-96	AJ277557.1	NT	Homo sapiens dNT-2 gene for mitochondrial 5(3')-deoxyribonucleotidase (dNT-2 gene), exons 1-5
7089	20295	33554	4.1	5.0E-96	11424399	NT	Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA
7089	20295	33555	4.1	5.0E-96	11424399	NT	Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA
7368	20362	33632	1.01	5.0E-96	AB023177.1	NT	Homo sapiens mRNA for KIAA0960 protein, partial cds
7838	20850	34169	1.45	5.0E-96	AB024334.1	NT	Homo sapiens mRNA for 14-3-3 gamma, complete cds
8684	21615	34957	2.03	5.0E-96	M68347.1	NT	Human type IV collagenase (CLG4B) gene, exon 5
8684	21615	34958	2.03	5.0E-96	M68347.1	NT	Human type IV collagenase (CLG4B) gene, exon 5
1217	25061	36550	1.69	5.0E-96	D83776.1	NT	Human mRNA for KIAA0181 gene, partial cds
4287	17301		5.4	3.0E-96	H68556.1	EST_HUMAN	y87h12.1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:212327 5'
438	13509		2.7	2.0E-96	4503098	NT	Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA
771	13828	28759	2.03	2.0E-96	AL163248.2	NT	Homo sapiens chromosome 21 segment HS21C048
7868	20795	34097	0.62	2.0E-96	BF369731.1	EST_HUMAN	QV4-GN0120-250800-427-512 GN0120 Homo sapiens cDNA
7868	20795	34098	0.62	2.0E-96	BF369731.1	EST_HUMAN	QV4-GN0120-250900-427-512 GN0120 Homo sapiens cDNA
9532	22460		4.93	2.0E-96	AV689461.1	EST_HUMAN	AV689461 GKC Homo sapiens cDNA clone GKC06MD07 5'
12364	25151		2.4	2.0E-96	AW249440.1	EST_HUMAN	2819351.5 prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2819351 5'
645	13706	26612	0.7	1.0E-96	4826863	NT	Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA
645	13706	26613	0.7	1.0E-96	4826863	NT	Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA
694	13764	26671	2.14	1.0E-96	Y18890.1	NT	Human endogenous retrovirus type K (HERV-K), gag, pol and env genes
1805	14831	27798	1.88	1.0E-96	AW955054.1	EST_HUMAN	EST1367124 MAGC resequences, MAGC Homo sapiens cDNA
1805	14831	27799	1.88	1.0E-96	AW955054.1	EST_HUMAN	EST1367124 MAGC resequences, MAGC Homo sapiens cDNA
2242	16252	28257	1	1.0E-96	M75967.1	NT	Human hepatocyte growth factor gene, exon 1
2242	16252	28258	1	1.0E-96	M75967.1	NT	Human hepatocyte growth factor gene, exon 1
2283	15857	28300	1.19	1.0E-96	U51472.2	NT	Felis catus superfast myosin heavy chain (sMyHC) mRNA, complete cds
6398	18380		35.82	1.0E-96	5453913	NT	Homo sapiens phospholipid transfer protein (PLTP) mRNA
7303	18472	31293	1.08	1.0E-96	6912735	NT	Homo sapiens transient receptor potential channel 5 (TRPC5), mRNA
7402	20101	33336	0.67	1.0E-96	6912455	NT	Homo sapiens guanine nucleotide exchange factor for Rap1 (KIAA0277), mRNA
8791	21721	35068	1.04	1.0E-96	7661803	NT	Homo sapiens HSPC144 protein (HSPC144), mRNA

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8791	21721	35086	1.04	1.0E-96	7661803	NT	Homo sapiens HSPC144 protein (HSPC144), mRNA
9275	22203	35560	26.87	1.0E-96	11419429	NT	Homo sapiens similar to ectonucleotide pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC63214), mRNA
9409	22337	35701	2.74	1.0E-96	AF274863.1	NT	Homo sapiens secretory pathway component Sec31B-1 mRNA, alternatively spliced, complete cds
10655	23541	36974	1.56	1.0E-96	AB033116.1	NT	Homo sapiens mRNA for KIAA1290 protein, partial cds
10655	23541	36975	1.56	1.0E-96	AB033116.1	NT	Homo sapiens mRNA for KIAA1290 protein, partial cds
12363	13706	26612	2.1	1.0E-96	4826863	NT	Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA
12353	13706	26613	2.1	1.0E-96	4826863	NT	Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA
3374	16418	28320	0.99	6.0E-97	BF245240.1	EST_HUMAN	Homo sapiens cDNA clone IMAGE:4081202 5'
7989	20908		3.62	6.0E-97	BE141849.1	EST_HUMAN	IL5-HT0117-011089-004-D07 HT0117 Homo sapiens cDNA
9489	22417	35779	0.94	6.0E-97	BE895012.1	EST_HUMAN	601440317F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3925133 5'
9489	22417	35780	0.94	6.0E-97	BE895012.1	EST_HUMAN	601440317F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3925133 5'
8593	21524	34869	1.79	5.0E-97	AL043314.2	EST_HUMAN	DKFZp434N0323.1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434N0323 5'
8721	21651	34998	10.22	5.0E-97	AA418026.1	EST_HUMAN	z097e12.s1 Soares_NHrMPu_S1 Homo sapiens cDNA clone IMAGE:767758 3' similar to TR:G1304125
10200	23091	39492	3.17	5.0E-97	BF154912.1	EST_HUMAN	G1304125 PMS4 MRNA :
11878	24822	38316	1.87	5.0E-97	BE148597.1	EST_HUMAN	RCO-BT0812-250900-032-a09 BT0812 Homo sapiens cDNA
11979	24822	38317	1.87	5.0E-97	BE148597.1	EST_HUMAN	MRO-HT0241-150500-010-B02 HT0241 Homo sapiens cDNA
967	14018	26962	1.56	4.0E-97	BE004436.1	EST_HUMAN	MRO-HT0241-150500-010-B02 HT0241 Homo sapiens cDNA
1028	14047	27923	1.18	4.0E-97	5453572	NT	CMO-BN0108-170300-299-a06 BN0108 Homo sapiens cDNA
5757	18830	31930	42.37	4.0E-97	4557328	NT	Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 2 (BIG2), mRNA
6070	19131	32264	0.53	4.0E-97	U09002.1	NT	Homo sapiens apolipoprotein H (beta-2-glycoprotein I) (APOH) mRNA
6070	19131	32265	0.53	4.0E-97	U09002.1	NT	Human N-methyl-D-aspartate receptor modulatory subunit 2A (hNR2A) mRNA, complete cds
7136	20244	33495	6	4.0E-97	Y11339.2	NT	Human N-methyl-D-aspartate receptor modulatory subunit 2A (hNR2A) mRNA, complete cds
7136	20244	33496	6	4.0E-97	Y11339.2	NT	Homo sapiens mRNA for GalNAc alpha-2, 6-sialyltransferase 1, long form
7366	20360	33629	1.03	4.0E-97	7710125	NT	Homo sapiens mRNA for GalNAc alpha-2, 6-sialyltransferase 1, long form
7422	20121	33358	0.94	4.0E-97	11422155	NT	Homo sapiens ligase III, DNA, ATP-dependent (LIG3), transcript variant alpha, mRNA
8113	25683		0.47	4.0E-97	7706512	NT	Homo sapiens cystic fibrosis transmembrane conductance regulator, ATP-binding cassette (sub-family C, member 7) (CFTR), mRNA
8400	21303	34634	0.42	4.0E-97	10947053	NT	Homo sapiens PDZ domain-containing guanine nucleotide exchange factor 1 (LOC51735), mRNA
8400	21303	34635	0.42	4.0E-97	10947053	NT	Homo sapiens ankyrin 2, neuronal (ANK2), transcript variant 2, mRNA
8713	21844	34990	0.83	4.0E-97	4557708	NT	Homo sapiens ankyrin 2, neuronal (ANK2), transcript variant 2, mRNA
8931	21861	35216	-1.46	4.0E-97	11421793	NT	Homo sapiens laminin, alpha 2 (merosin, congenital muscular dystrophy) (LAMA2) mRNA
							Homo sapiens v-src avian sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (SRC), mRNA

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe- SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
9179	22107	36466	0.85	4.0E-97	11423233	NT	Homo sapiens cytochrome P450, subfamily IVB, polypeptide 1 (CYP4B1), mRNA
9790	22754	36136	1.22	4.0E-97	AB011168.1	NT	Homo sapiens mRNA for KIAA0594 protein, partial cds
9790	22754	36137	1.22	4.0E-97	AB011168.1	NT	Homo sapiens mRNA for KIAA0594 protein, partial cds
11604	24513	37981	1.84	4.0E-97	11803122	NT	Homo sapiens AXL receptor tyrosine kinase (AXL), transcript variant 1, mRNA
11604	24513	37982	1.84	4.0E-97	11863122	NT	Homo sapiens AXL receptor tyrosine kinase (AXL), transcript variant 1, mRNA
11687	23957	37403	1.68	4.0E-97	AB042557.1	NT	Homo sapiens G-2 and S-phase expressed 1 (GTSE1), mRNA
12524	25248		7.95	4.0E-97	11418318	NT	Homo sapiens mRNA for KIAA1172 protein, partial cds
262	13358	26273	1.31	3.0E-97	AB032998.1	NT	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA
899	13952	26899	7.56	3.0E-97	4502168	NT	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA
899	13952	26900	7.56	3.0E-97	4502168	NT	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA
1460	15901	27453	1.43	3.0E-97	4759813	NT	Homo sapiens N-myc (and STAT1) interactor (NMI), mRNA
2482	15859	28463	2.08	3.0E-97	U30255.1	NT	Human beta-platelet-adenoplin (BAM22) gene, exon 7
3212	16250	28159	14.55	3.0E-97	K02212.1	NT	Human alpha-1-antitrypsin gene (S variant), complete cds
3305	16352	29255	1.17	3.0E-97	5174478	NT	Homo sapiens pericentrioh (PCNT1) mRNA
3894	16923	29799	0.82	3.0E-97	AF136523.1	NT	Homo sapiens bile salt export pump (BSEP) mRNA, complete cds
4892	17891	30757	4.56	1.0E-97	4503470	NT	Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA
6695	18731	32931	2.44	1.0E-97	BE568466.1	EST_HUMAN	601339520F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3681821 5'
7227	20138	33378	0.55	1.0E-97	5453881	NT	Homo sapiens phosphotyrosine kinase, gamma 1 (nuccle) (PHKG1) mRNA
9977	21335	34670	0.69	1.0E-97	AW376976.1	EST_HUMAN	RCQ-HT0258-211199-011-g05 HT0258 Homo sapiens cDNA
9977	21335	34671	0.69	1.0E-97	AW376976.1	EST_HUMAN	RCQ-HT0258-211199-011-g05 HT0258 Homo sapiens cDNA
10284	23174	36586	1.39	1.0E-97	R10887.1	EST_HUMAN	y38c08.s1 Soares fetal liver epigen 1NFLS Homo sapiens cDNA clone IMAGE:129134 3'
11148	24077	37525	3.9	1.0E-97	11427757	NT	Homo sapiens KIAA0849 gene product (KIAA0849), mRNA
11148	24077	37526	3.9	1.0E-97	11427757	NT	Homo sapiens KIAA0849 gene product (KIAA0849), mRNA
11754	24655	38138	1.73	1.0E-97	AA553761.1	EST_HUMAN	nk28g02.s1 NCL CGAP_Cot11 Homo sapiens cDNA clone IMAGE:1014962 3'
11900	24000	37438	6.95	1.0E-97	11426272	NT	Homo sapiens ribosomal protein S15 (RPS15), mRNA
11900	24000	37439	6.95	1.0E-97	11426272	NT	Homo sapiens ribosomal protein S15 (RPS15), mRNA
928	13978	26924	3.7	9.0E-98	BE090973.1	EST_HUMAN	PM4-BT0724-010400-008-a12 BT0724 Homo sapiens cDNA
4784	17769		0.92	9.0E-98	8400716	NT	Homo sapiens nebulin (NEB), mRNA
6567	19599		0.72	9.0E-98	AJ250713.1	NT	Homo sapiens CLDN12 gene for claudin-12
7689	20603	33901	0.54	9.0E-98	7661871	NT	Homo sapiens leucyl-tRNA synthetase, mitochondrial (KIAA0028), mRNA
7784	20713	34015	0.92	9.0E-98	11419408	NT	Homo sapiens A kinase (PRKA) anchor protein (yotiao) 9 (AKAP9), mRNA
8503	21434	34775	7.2	9.0E-98	4758119	NT	Homo sapiens death-associated protein (DAP), mRNA



Table 4  
Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8503	21434	34776	7.2	9.0E-98	4758119	NT	Homo sapiens death-associated protein (DAP), mRNA
9660	22636	35957	4.34	9.0E-98	X06989.1	NT	Human mRNA for amyloid A4(761) protein
9765	22639	36074	5.67	9.0E-98	11321580	NT	Homo sapiens succinate-CoA ligase, GDP-forming, alpha subunit (SUCLG1), mRNA
9832	22738	36120	1.63	9.0E-98	AB037786.1	NT	Homo sapiens mRNA for KIAA1365 protein, partial cds
9878	22793		1.16	9.0E-98	AF067726.1	NT	Homo sapiens 17-beta-hydroxysteroid dehydrogenase IV (HSD17B4) gene, exon 8
9906	22894	36280	1.13	9.0E-98	4507070	NT	Homo sapiens SW/ISNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 3 (SMARCA3) mRNA
9906	22894	36281	1.13	9.0E-98	4507070	NT	Homo sapiens SW/ISNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 3 (SMARCA3) mRNA
10763	23639	37072	0.84	9.0E-98	AF141325.2	NT	Homo sapiens inositol polyphosphate 1-phosphatase (INPP1) gene, complete cds
10832	23738	37161	0.71	9.0E-98	11431544	NT	Homo sapiens protease-activated receptor 3 (PAR3), mRNA
11442	24358	37807	2.32	9.0E-98	AB023222.1	NT	Homo sapiens mRNA for KIAA1005 protein, partial cds
11442	24358	37808	2.32	9.0E-98	AB023222.1	NT	Homo sapiens mRNA for KIAA1005 protein, partial cds
12539	13978	26924	6.11	9.0E-98	BE060973.1	EST_HUMAN	PM4-BT0724-010400-008-at12 ET0724 Homo sapiens cDNA
25	13141		0.77	8.0E-98	AJ251159.1	NT	Homo sapiens partial MCB gene for MHC class I chain-related protein B, exons 2-3 and joined CDS
1581	14611	27573	1.53	8.0E-98	5031810	NT	Homo sapiens IL2-inducible T-cell kinase (ITK), mRNA
1581	14611	27574	1.63	8.0E-98	5031810	NT	Homo sapiens IL2-inducible T-cell kinase (ITK), mRNA
1756	14793	27753	4.42	8.0E-98	AB017007.1	NT	Homo sapiens PMS2L16 mRNA, partial cds
1756	14793	27754	4.42	8.0E-98	AB017007.1	NT	Homo sapiens PMS2L16 mRNA, partial cds
3054	16690	29585	1.27	8.0E-98	AJ226041.1	NT	Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3
3634	16690	29586	1.27	8.0E-98	AJ226041.1	NT	Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3
3860	16889	29774	11.61	8.0E-98	J04469.1	NT	Human mitochondrial creatine kinase (CKMT) gene, complete cds
6319	19369	32538	1.82	5.0E-98	BE885873.1	EST_HUMAN	601507503F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3909087 5'
6406	18387		1	4.0E-98	AA001788.1	EST_HUMAN	2184712.1 Scores_fetal_liver_spleen_INFLS_S1 Homo sapiens cDNA clone IMAGE:428015 5'
2191	15202	28207	1.1	3.0E-98	AJ403124.1	EST_HUMAN	AJ403124 3.4 (downregulated in larynx carcinoma) Homo sapiens cDNA clone IB
2651	16948	28948	2.82	3.0E-98	AB014607.1	NT	Homo sapiens mRNA for KIAA0707 protein, partial cds
2798	15767		4.29	3.0E-98	AA077498.1	EST_HUMAN	7518H01 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B18H01
7275	20228	33476	0.41	3.0E-98	9888849	NT	Homo sapiens chromosome 12 open reading frame 4 (C12ORF4), mRNA
7278	20231	33480	2.2	3.0E-98	11419210	NT	Homo sapiens activator of S phase kinase (ASK), mRNA
7278	20231	33491	2.2	3.0E-98	11419210	NT	Homo sapiens activator of S phase kinase (ASK), mRNA
9311	22239	35600	4.21	3.0E-98	H46698.1	EST_HUMAN	Y017609.1 Scores_adult_brain_N2b5HB55Y Homo sapiens cDNA clone IMAGE:178240 5'
9837	22742	35123	0.74	3.0E-98	8922096	NT	Homo sapiens uncharacterized bone marrow protein BM039 (BM039), mRNA
10395	23284	36704	1.47	3.0E-98	AJ403124.1	EST_HUMAN	AJ403124 3.4 (downregulated in larynx carcinoma) Homo sapiens cDNA clone IB

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
10395	23284	36706	1.47	3.0E-98	AJ403124.1	EST_HUMAN	AJ403124.3.4 (downregulated in larynx carcinoma) Homo sapiens cDNA clone l8
10952	23836	37263	0.84	3.0E-98	BE900454.1	EST_HUMAN	601673866F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3656517 5'
11391	24307	37763	12.18	3.0E-98	U59809.1	NT	Human fumarate precursors (FH) mRNA, nuclear gene encoding mitochondrial protein, complete cds
13058	25585		2.5	3.0E-98	11418177	NT	Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA
759	13816	26745	0.73	2.0E-98	BE261894.1	EST_HUMAN	601149486F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3502245 5'
2092	15106	28107	3.88	2.0E-98	BE294281.1	EST_HUMAN	601172658F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3528134 5'
2253	15263	28272	2.38	2.0E-98	AL163202.2	NT	Homo sapiens chromosome 21 segment HS21C002
4399	17412	30278	0.85	2.0E-98	AF032897.1	NT	Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds
4449	17459	30318	4.13	2.0E-98	4758331	NT	Homo sapiens fatty acid-Coenzyme A ligase, long-chain 4 (FACL4) mRNA
4940	17939	30795	1.54	2.0E-98	AF218902.1	NT	Homo sapiens attractin precursor (ATRIN) gene, exon 16
4940	17939	30796	1.54	2.0E-98	AF218902.1	NT	Homo sapiens attractin precursor (ATRIN) gene, exon 16
5561	18639	31518	5.74	2.0E-98	7708512	NT	Homo sapiens PDZ domain-containing guanine nucleotide exchange factor 1 (LOC61735), mRNA
6848	19977	33200	1.07	2.0E-98	4505798	NT	Homo sapiens phosphatidylinositol 3-kinase, class 2, alpha polypeptide (PIK3C2A) mRNA
8071	20984	34269	1.38	2.0E-98	11431271	NT	Homo sapiens hypothetical protein FLJ10488 (FLJ10488), mRNA
8071	20984	34269	1.38	2.0E-98	11431271	NT	Homo sapiens hypothetical protein FLJ10488 (FLJ10488), mRNA
8289	21193	34530	0.42	2.0E-98	11431048	NT	Homo sapiens KIAA0104 gene product (KIAA0104), mRNA
9169	22097	35456	4.11	2.0E-98	11428813	NT	Homo sapiens SH3-domain GRB2-like 2 (SH3GL2), mRNA
9169	22097	35457	4.11	2.0E-98	11428813	NT	Homo sapiens SH3-domain GRB2-like 2 (SH3GL2), mRNA
9249	22177	35530	0.67	2.0E-98	L76666.1	NT	Homo sapiens NKAT4b mRNA, complete cds
9249	22177	35531	0.67	2.0E-98	L76666.1	NT	Homo sapiens NKAT4b mRNA, complete cds
10066	22882	36373	1.49	2.0E-98	X12664.1	NT	H. sapiens arginase gene exon 3 (EC 3.5.3.1)
10897	23782		1.9	2.0E-98	7705868	NT	Homo sapiens AIM-1 protein (LOC51151), mRNA
11644	24550	38022	4.75	2.0E-98	U22028.1	NT	Human cytochrome P450 (CYP2A13) gene, complete cds
428	13499	26423	21.4	1.0E-98	AI862007.1	EST_HUMAN	h38800.4.x1 NCI_CGAP_U11 Homo sapiens cDNA clone IMAGE:2281743 3' similar to SW:RL2B_HUMAN
477	13548	28468	1.83	1.0E-98	AW998611.1	EST_HUMAN	P29318 60S RIBOSOMAL PROTEIN L23A. ;
1820	14843	27818	17.08	1.0E-98	N49818.1	EST_HUMAN	PMO-BN0055-100300-001-c06BN0065 Homo sapiens cDNA
5500	18578	31427	3.23	1.0E-98	AA195854.1	EST_HUMAN	Y2305.r1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:243585 5' similar to
5761	18834	31936	0.92	1.0E-98	BE390627.1	EST_HUMAN	PIR:S54204 S54204 ribosomal protein L29 - human ;
5761	18834	31937	0.92	1.0E-98	BE390627.1	EST_HUMAN	z58c09.r1 Striatogene muscle 837209 Homo sapiens cDNA clone IMAGE:028240 5' similar to TR:G806582
9550	22477	36836	0.72	1.0E-98	AF141349.1	NT	G806582 NEBULIN ;
							601284986F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3606692 5'
							601284986F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3606692 5'
							Homo sapiens beta-tubulin mRNA, complete cds

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
9560	22477	35836	0.72	1.0E-98	AF141349.1	NT	Homo sapiens beta-tubulin mRNA, complete cds
6030	18092	32219	0.99	9.0E-99	AI905004.1	EST_HUMAN	QV-BT073-191288-012 BT073 Homo sapiens cDNA
6030	18092	32220	0.99	9.0E-99	AI905004.1	EST_HUMAN	QV-BT073-191288-012 BT073 Homo sapiens cDNA
6275	18326	32483	4.39	9.0E-99	AW968035.1	EST_HUMAN	EST380711 MAGE resequencing, MAGJ Homo sapiens cDNA
11562	24471	37937	2.81	9.0E-99	AI479829.1	EST_HUMAN	tm68h07.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2163421 3' similar to SW:BIID_HUMAN
11562	24471	37938	2.81	9.0E-99	AI479829.1	EST_HUMAN	tm68h07.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2163421 3' similar to SW:BIID_HUMAN
9286	22214	35572	0.99	8.0E-99	9635487	NT	P55957 BH3 INTERACTING DOMAIN DEATH AGONIST ; Human endogenous retrovirus, complete genome
6047	19109	32239	9.01	7.0E-99	AF035908.1	NT	Homo sapiens oscillin (hLn) gene, exon 5
12037	24879	38385	2.78	7.0E-99	AF001886.1	NT	Homo sapiens NK-receptor (KIR-G2) gene, linker region exon
404	13564	26489	0.76	6.0E-99	U10991.1	NT	Human G2 protein mRNA, partial cds
3958	16986	29872	1.78	6.0E-99	AW976384.1	EST_HUMAN	EST388473 MAGE resequencing, MAGN Homo sapiens cDNA
4882	17884	30728	1	6.0E-99	4502660	NT	Homo sapiens CD34 antigen (CD34) mRNA
6884	19914	33130	0.74	6.0E-99	7708138	NT	Homo sapiens GAP-like protein (LOC51306), mRNA
6874	20001	33232	0.98	6.0E-99	L43510.1	NT	Homo sapiens polycystic kidney disease (PKD1) gene, exons 27-30
6874	20001	33233	0.98	6.0E-99	L43510.1	NT	Homo sapiens polycystic kidney disease (PKD1) gene, exons 27-30
8883	21614	34956	1.32	6.0E-99	X99101.1	NT	H sapiens mRNA for estrogen receptor
8700	21631	34976	0.72	6.0E-99	6601989	NT	Homo sapiens ankyrin-like with transmembrane domains 1 (ANKTM1), mRNA
9324	22352	35610	2.88	6.0E-99	AB036429.1	NT	Homo sapiens NDST4 mRNA for N-deacetylase/N-sulfotransferase 4, complete cds
9422	22350	35715	4.44	6.0E-99	AF080255.1	NT	Homo sapiens fadester protein mRNA, complete cds
9422	22350	35716	4.44	6.0E-99	AF080255.1	NT	Homo sapiens fadester protein mRNA, complete cds
9479	22407	35767	0.67	6.0E-99	11431934	NT	Homo sapiens inositol 1,4,5-triphosphate receptor, type 1 (ITPR1), mRNA
9479	22407	35768	0.67	6.0E-99	11431934	NT	Homo sapiens inositol 1,4,5-triphosphate receptor, type 1 (ITPR1), mRNA
11162	24090	37538	3.79	6.0E-99	11526289	NT	Homo sapiens BH3 interacting domain death agonist (BID), mRNA
11888	23988	37426	1.56	6.0E-99	9910279	NT	Homo sapiens UDP-glucose glycoprotein glucosyltransferase 1 (HUGT1), mRNA
11888	23988	37427	1.56	6.0E-99	9910279	NT	Homo sapiens UDP-glucose glycoprotein glucosyltransferase 1 (HUGT1), mRNA
945	13896	26637	3.34	5.0E-99	U35464.1	NT	Human protein G inhibitor (PGI-B) mRNA, complete cds
945	13896	26638	3.34	5.0E-99	U35464.1	NT	Human protein G inhibitor (PGI-B) mRNA, complete cds
1980	14998	27663	1.42	5.0E-99	Y11365.1	NT	H sapiens IMPA gene, exon 8
4879	17684	30552	1.67	5.0E-99	AF009860.1	NT	Homo sapiens T cell receptor beta locus, TORBV7SAA2 to TORBV12S2 region
12654	25269		1.86	5.0E-99	BE890177.1	EST_HUMAN	601513157F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3914391 5'
8896	21828		5.75	3.0E-99	M95586.1	NT	Human E2A/HLA fusion protein (E2A/HLF) mRNA, complete cds

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1267	14302		10.64	2.0E-99	AW274792.1	EST_HUMAN	XP009066.x1 NC1_CGAP_HN9 Homo sapiens cDNA clone IMAGE:2738874 3' similar to gb:M31212 MYOSIN LIGHT CHAIN ALKALI, NON-MUSCLE ISOFORM (HUMAN);
3303	16350	29254	1.26	2.0E-99	M30938.1	NT	Human Ku (p70/p80) subunit mRNA, complete cds
4669	17664	30532	1.03	2.0E-99	AF095703.1	NT	Homo sapiens short chain L-3-hydroxyacyl-CoA dehydrogenase precursor (HADHSC) gene, nuclear gene encoding mitochondrial protein, complete cds
8127	21037	34366	0.55	2.0E-99	AF257737.1	NT	Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds
9265	22193	35551	10.26	2.0E-99	W23507.1	EST_HUMAN	zb46d06.r1 Scarsa_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:306635 5' similar to gb:M15192 BETA-GLUCURONIDASE PRECURSOR (HUMAN);
9895	22620	35998	0.8	2.0E-99	R78254.1	EST_HUMAN	y81b09.r1 Scarsa placenta Nb2HP Homo sapiens cDNA clone IMAGE:145825 5'
11549	24458	37821	3.82	2.0E-99	AF247457.2	NT	Homo sapiens myosin X (MYO10) mRNA, complete cds
12194	25029	38530	3.81	2.0E-99	10863960	NT	Homo sapiens potassium channel, subfamily K, member 10 (KCNK10), mRNA
335	13426	26341	1.54	1.0E-99	AF114487.1	NT	Homo sapiens intersectin long isoform (ITSN) mRNA, complete cds
400	13482	26402	0.94	1.0E-99	11626160	NT	Homo sapiens G3-binding protein transcription factor, alpha subunit (60KD) (GABPA), mRNA
1443	14474	27432	1.48	1.0E-99	M30938.1	NT	Human Ku (p70/p80) subunit mRNA, complete cds
1578	14608	27568	1.51	1.0E-99	AF192523.1	NT	Homo sapiens truncated Niamenn-Pick C3 protein (NPC3) mRNA, complete cds
1578	14608	27569	1.51	1.0E-99	AF192523.1	NT	Homo sapiens truncated Niamenn-Pick C3 protein (NPC3) mRNA, complete cds
1942	14863	27941	1.34	1.0E-99	4503730	NT	Homo sapiens FK506-binding protein 8 (38kd) (FKBP8) mRNA, and translated products
1942	14863	27942	1.34	1.0E-99	4503730	NT	Homo sapiens FK506-binding protein 8 (38kd) (FKBP8) mRNA, and translated products
3134	16184	29077	1.52	1.0E-99	J03171.1	NT	Human Interferon-alpha receptor (HuIFN-alpha-Rec) mRNA, complete cds
4487	17498	30358	2.78	1.0E-99	AF098018.1	NT	Homo sapiens fatty acid amidohydrolase (FAAH) gene, exon 14
4487	17498	30359	2.76	1.0E-99	AF098018.1	NT	Homo sapiens fatty acid amidohydrolase (FAAH) gene, exon 14
5949	19016	32136	0.49	1.0E-99	7682349	NT	Homo sapiens cell recognition molecule Caspr2 (KIAA0888), mRNA
7115	20319	33583	1.42	1.0E-99	11421007	NT	Homo sapiens glycine receptor, alpha 2 (GLRA2), mRNA
7115	20319	33584	1.42	1.0E-99	11421007	NT	Homo sapiens glycine receptor, alpha 2 (GLRA2), mRNA
7499	25671	33720	0.83	1.0E-99	X88022.1	NT	H. sapiens EG-AP gene exon 2
9741	22665		1.12	1.0E-99	11419721	NT	Homo sapiens ALEX1 protein (LOC51309), mRNA
10050	22966	36355	1.71	1.0E-99	AW340174.1	EST_HUMAN	hd02h02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2808371 3' similar to TR:002711
11577	24486	37954	1.42	1.0E-99	7427514	NT	002711 PRO-POLYDUTASE POLYPROTEIN ;
11577	24486	37955	1.42	1.0E-99	7427514	NT	Homo sapiens huntingtin interacting protein 1 (HIP1), mRNA
11631	24537	38008	1.59	1.0E-99	5901979	NT	Homo sapiens huntingtin interacting protein 1 (HIP1), mRNA
11816	24737	38228	3.26	1.0E-99	AB023222.1	NT	Homo sapiens heat shock transcription factor 2 binding protein (HSF2BP), mRNA
12336	25131		5.36	1.0E-99	AF240786.1	NT	Homo sapiens mRNA for KIAA1009 protein, partial cds Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1	13118	26004	1.25	1.0E-100	AL163247.2	NT	Homo sapiens chromosome 21 segment HS21C047
2	13118	26004	1.46	1.0E-100	AL163247.2	NT	Homo sapiens chromosome 21 segment HS21C047
71	13186	26093	1.3	1.0E-100	11418230	NT	Homo sapiens Testis-specific XK-related protein on Y (XKRY), mRNA
71	13186	26094	1.3	1.0E-100	11418230	NT	Homo sapiens Testis-specific XK-related protein on Y (XKRY), mRNA
89	13202	26116	1	1.0E-100	AW275237.1	EST_HUMAN	x78b11.x1 NCI_CGAP_Bri53 Homo sapiens cDNA clone IMAGE:2824605 3'
179	13279	26194	1.08	1.0E-100	AL163208.2	NT	Homo sapiens chromosome 21 segment HS21C006
337	13427	26343	25.73	1.0E-100	AL163249.2	NT	Homo sapiens chromosome 21 segment HS21C049
363	13460	26362	2.75	1.0E-100	T05087.1	EST_HUMAN	EST02975 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBCCR32
480	13532		1.45	1.0E-100	AF003528.1	NT	Homo sapiens X-linked/anhydrotic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions
612	13593		18.09	1.0E-100	X89631.1	NT	G.gallia DNA for ZNF80 gene homolog
532	13601	26512	1.33	1.0E-100	BE180609.1	EST_HUMAN	RC3-H10625-040500-022-509 H10625 Homo sapiens cDNA
1046	14080	27028	2.5	1.0E-100	7691685	NT	Homo sapiens DKFZP586M0122 protein (DKFZP586M0122), mRNA
1048	14080	27028	2.5	1.0E-100	7691685	NT	Homo sapiens DKFZP586M0122 protein (DKFZP586M0122), mRNA
1668	14598		1.67	1.0E-100	AW207565.1	EST_HUMAN	U1-H-B1-afk-c-07-0-UJ.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2722164 3'
1573	14603	27563	1.63	1.0E-100	AU200857.1	EST_HUMAN	q62009.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1764633 3' similar to SW:CYT_COTJA P31061 CYSTATIN1
2287	15267		1.28	1.0E-100	D83349.1	NT	Rat mRNA for short type PB-cadherin, complete cds
2461	15465	28462	1.01	1.0E-100	X82468.1	NT	H.sapiens mRNA for IFN-gamma (pKG-0)
2756	16747	28742	1.48	1.0E-100	11418976	NT	Homo sapiens KIAA0957 protein (KIAA0957), mRNA
3064	16116		3.79	1.0E-100	D11078.1	NT	Homo sapiens RGH2 gene, retrovirus-like element
4306	17320	30189	1.64	1.0E-100	AF067364.1	NT	Homo sapiens myotubularin-related protein 1a mRNA, partial cds
4336	17350	30213	2.49	1.0E-100	4503792	NT	Homo sapiens follicle stimulating hormone receptor (FSHR), mRNA
5226	18214	31059	3.7	1.0E-100	5032104	NT	Homo sapiens small optic lobes (Drosophila) homolog (SOLH) mRNA
5225	18214	31060	3.7	1.0E-100	5032104	NT	Homo sapiens small optic lobes (Drosophila) homolog (SOLH) mRNA
5352	18335		1.08	1.0E-100	W78748.1	EST_HUMAN	zh50e11.r1 Soares_fetal_liver_spleen_INFLS_S1 Homo sapiens cDNA clone IMAGE:415832 5' similar to gb:M24847 SODIUM/GLUCOSE CO-TRANSPORTER (HUMAN);
5472	18553	31366	1.66	1.0E-100	BF244218.1	EST_HUMAN	601863164F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4080999 5'
5698	18771	31699	1	1.0E-100	AW075983.1	EST_HUMAN	xa8201.x1 NCI_CGAP_CML1 Homo sapiens cDNA clone IMAGE:2573305 3' similar to gb:X12493 PROTEIN PHP31-2 (HUMAN);
5899	18968	32088	1.97	1.0E-100	AU118182.1	EST_HUMAN	AU118182 HEMBA1 Homo sapiens cDNA clone HEMBA1003046 5'
5952	19018	32139	1.4	1.0E-100	AF135116.1	NT	Homo sapiens NF-E2-related factor 3 gene, complete cds
6051	19113	32242	6.47	1.0E-100	X14690.1	NT	Human mRNA for plasma inter-alpha-trypsin inhibitor heavy chain H(3)
6404	19462	32623	1.06	1.0E-100	4557568	NT	Homo sapiens ER to nucleus signalling 1 (ERN1), mRNA

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6404	19452	32624	1.03	1.0E-100	4867868	NT	Homo sapiens ER to nucleus signalling 1 (ERN1) mRNA
6773	19807	33018	5.1	1.0E-100	AU140214.1	EST_HUMAN	AU140214 PLACE2 Homo sapiens cDNA clone PLACE2000137 5'
6833	19865	33079	0.61	1.0E-100	AU136800.1	EST_HUMAN	AU136800 PLACE1 Homo sapiens cDNA clone PLACE1005089 5'
6982	20009	33240	1.33	1.0E-100	R10887.1	EST_HUMAN	Y3808.s1 Soares fetal liver spliced INFLS Homo sapiens cDNA clone IMAGE:129134 3'
7076	20281	33537	0.85	1.0E-100	7382479	NT	Homo sapiens Rho GTPase activating protein 9 (RHGAP9), transcript variant 4, mRNA
7158	20266	33520	1.07	1.0E-100	AA496841.1	EST_HUMAN	ee33006.r1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:897587 5' similar to TR:G487418
7158	20266	33521	1.07	1.0E-100	AA496841.1	EST_HUMAN	G487418 ACTIN FILAMENT-ASSOCIATED PROTEIN, ;
7213	20213	33459	1.17	1.0E-100	BF378478.1	EST_HUMAN	G487418 ACTIN FILAMENT-ASSOCIATED PROTEIN, ;
7213	20213	33460	1.17	1.0E-100	BF378478.1	EST_HUMAN	MR1-TN0046-060900-004-005 TN0046 Homo sapiens cDNA
7221	20220	33468	7.18	1.0E-100	X04571.1	NT	MR1-TN0046-060900-004-005 TN0046 Homo sapiens cDNA
9098	22025	35381	5.23	1.0E-100	BF103853.1	EST_HUMAN	Human mRNA for kidney epidermal growth factor (EGF) precursor
9131	22059	35381	1.74	1.0E-100	AL183203.2	NT	G01647357F1 NIH_MGC_61 Homo sapiens cDNA clone IMAGE:3931310 5'
9568	22463	35855	0.61	1.0E-100	AU116951.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C003
9568	22463	35856	0.61	1.0E-100	AU116951.1	EST_HUMAN	AU116951 HEMBA1 Homo sapiens cDNA clone HEMBA1000343 5'
9774	22658	36084	3.54	1.0E-100	AB040918.1	NT	AU116951 HEMBA1 Homo sapiens cDNA clone HEMBA1000343 5'
9850	22959		1.72	1.0E-100	AI972388.1	EST_HUMAN	Homo sapiens mRNA for KIAA1485 protein, partial cds
9867	21325	34658	2.43	1.0E-100	AW998611.1	EST_HUMAN	vr37g09.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2486920 3' similar to contains element
10019	23919		0.98	1.0E-100	AU127720.1	EST_HUMAN	MER22 repetitive element;
10112	23003	36399	2.4	1.0E-100	AB046946.1	NT	PM0-BN0055-100300-001-c06 BN0055 Homo sapiens cDNA
10358	23247	36686	1.61	1.0E-100	AW630487.1	EST_HUMAN	AU127720 NT2RP2 Homo sapiens cDNA clone NT2RP2001918 5'
10358	23247	36687	1.61	1.0E-100	AW630487.1	EST_HUMAN	Homo sapiens mRNA for KIAA1626 protein, partial cds
10949	23833	37260	0.7	1.0E-100	BF347519.1	EST_HUMAN	Homo sapiens mRNA for KIAA1626 protein, partial cds
11035	23919		2.16	1.0E-100	Y10391.1	NT	fr83c11.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2989398 5'
11198	24124	37570	7.02	1.0E-100	BF327292.1	EST_HUMAN	fr83c11.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2989398 5'
11792	24714	38204	4.74	1.0E-100	AF111170.3	NT	fr83c11.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2989398 5'
11792	24714	38205	4.74	1.0E-100	AF111170.3	NT	602020594F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4158165 5'
12059	24900		1.59	1.0E-100	AW875464.1	EST_HUMAN	Human endogenous retrovirus HERV-K, pol gene
12106	24947		1.82	1.0E-100	AF266285.1	NT	MR0-BN0070-270300-008-h11 BN0070 Homo sapiens cDNA
12168	25004	38506	1.8	1.0E-100	AA115605.1	EST_HUMAN	Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene
12168	25004	38507	1.8	1.0E-100	AA115605.1	EST_HUMAN	Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
12263	25081	38572	12.92	1.0E-100	AF240786.1	NT	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds
12544	25263	31836	2.34	1.0E-100	11545732	NT	Homo sapiens SH3-domain binding protein 1 (SH3BP1), mRNA
13093	25610	31734	5.72	1.0E-100	11417974	NT	Homo sapiens transcobalamin II; macrocytic anemia (TCN2), mRNA
80	13184	26106	6.71	1.0E-101	7110714	NT	Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA
80	13184	26107	6.71	1.0E-101	7110714	NT	Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA
710	13760	26885	2.27	1.0E-101	AB007915.2	NT	Homo sapiens mRNA for KIAA0449 protein, partial cds
727	13765	26710	5.49	1.0E-101	7110734	NT	Homo sapiens ventral anterior homeobox 2 (VAX2), mRNA
727	13765	26711	5.49	1.0E-101	7110734	NT	Homo sapiens ventral anterior homeobox 2 (VAX2), mRNA
797	13852	26787	1.79	1.0E-101	7657454	NT	Homo sapiens pascadillo (zbr1f1sh) homolog 1, containing BRCT domain (PES1), mRNA
878	13931	26878	2.73	1.0E-101	4503914	NT	Homo sapiens phosphoribosylamidoazole synthetase (GART) mRNA
953	14003	26948	0.92	1.0E-101	Z20556.1	NT	Homo sapiens of cardiac alpha-myosin heavy chain gene
1012	14061	27006	12.07	1.0E-101	BF681218.1	EST_HUMAN	602156474F1 NIH_MGC 83 Homo sapiens cDNA clone IMAGE:4297291 5'
1079	14123	27060	1.56	1.0E-101	AJ221878.1	EST_HUMAN	c99909.x1 Soares_NFL T_GCC S1 Homo sapiens cDNA clone IMAGE:1843336 3'
1605	14636	27598	1.33	1.0E-101	5921460	NT	Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA
1605	14636	27599	1.33	1.0E-101	5921460	NT	Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA
1960	14979	27963	6.95	1.0E-101	4502996	NT	Homo sapiens carboxypeptidase A1 (pancreatic) (CPA1) mRNA
2069	15084	28083	1.34	1.0E-101	BE843070.1	EST_HUMAN	RC3-ST0281-180600-076-h08 ST0281 Homo sapiens cDNA
2372	15922	28379	1.41	1.0E-101	5729892	NT	Homo sapiens A kinase (PRKA) anchor protein 8 (AKAP8), mRNA
2659	15855	28655	5.44	1.0E-101	X72093.1	NT	H. sapiens EWS gene, exon 5
2792	15781	28778	1.4	1.0E-101	AJ237744.1	NT	Homo sapiens RIBIR gene (partial), exon 12
2792	15781	28779	1.4	1.0E-101	AJ237744.1	NT	Homo sapiens RIBIR gene (partial), exon 12
2896	16048		11.84	1.0E-101	AJ252312.1	NT	Homo sapiens genomic downstream Rhesus box
3247	16295	29199	3.31	1.0E-101	4885270	NT	Homo sapiens gamma-glutamyltransferase 1 (GGT1) mRNA
3287	16334		3.12	1.0E-101	BF035327.1	EST_HUMAN	601458531F1 NIH_MGC 98 Homo sapiens cDNA clone IMAGE:3662086 5'
3438	16479	29385	1.85	1.0E-101	AV066566.1	EST_HUMAN	EST137828 MAGI resequences, MAGI Homo sapiens cDNA
3460	15781	28778	1.81	1.0E-101	AJ237744.1	NT	Homo sapiens RIBIR gene (partial), exon 12
3460	15781	28779	1.81	1.0E-101	AJ237744.1	NT	Homo sapiens RIBIR gene (partial), exon 12
3946	16974	29857	5.13	1.0E-101	AB022785.1	NT	Homo sapiens A3H2L gene, complete cds, similar to Drosophila ash2 gene
5165	18167	31004	1.22	1.0E-101	5921460	NT	Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA
5165	18167	31005	1.22	1.0E-101	5921460	NT	Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA
5501	18580	31428	1	1.0E-101	AV066566.1	EST_HUMAN	EST377212 MAGI resequences, MAGI Homo sapiens cDNA
6235	19289	32448	4.32	1.0E-101	7427512	NT	Homo sapiens cytoplasmic linker 2 (CYLN2), mRNA

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6235	19286	32449	4.32	1.0E-101	7427612	NT	Homo sapiens cytoplasmic linker 2 (CYLN2), mRNA
6892	20019	33252	1.09	1.0E-101	11430734	NT	Homo sapiens carbonic anhydrase VII (CA7), mRNA
7649	20583		1.07	1.0E-101	11545780	NT	Homo sapiens hypothetical protein FLJ22087 (FLJ22087), mRNA
7704	20636	33932	4.43	1.0E-101	AF208970.1	NT	Homo sapiens Kruppel-type zinc finger protein (PEG3), mRNA, alternative splice form 4, partial cds
7704	20636	33933	4.43	1.0E-101	AF208970.1	NT	Homo sapiens Kruppel-type zinc finger protein (PEG3), mRNA, alternative splice form 4, partial cds
7896	20822	34127	18.08	1.0E-101	AW008475.1	EST_HUMAN	h65512.1 NCL CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2533487 3'
8009	20926		1.92	1.0E-101	BE257384.1	EST_HUMAN	601109217F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3349901 5'
8184	21091	34423	7.76	1.0E-101	BF330759.1	EST_HUMAN	RC1-BT0313-220700-018-f12 B T0313 Homo sapiens cDNA
8492	21423	34762	0.77	1.0E-101	BE275921.1	EST_HUMAN	601121621F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3345869 5'
8492	21423	34763	0.77	1.0E-101	BE275921.1	EST_HUMAN	601121621F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3345869 5'
8633	21584	34801	2.69	1.0E-101	BF029174.1	EST_HUMAN	601784666F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3998937 5'
8897	21827	35178	0.6	1.0E-101	AW630070.1	EST_HUMAN	h747g10.y1 NCL CGAP_GU1 Homo sapiens cDNA clone IMAGE:2988578 5' similar to gb:J03143 INTERFERON-GAMMA RECEPTOR ALPHA CHAIN PRECURSOR (HUMAN);
8897	21827	35179	0.6	1.0E-101	AW630070.1	EST_HUMAN	h747g10.y1 NCL CGAP_GU1 Homo sapiens cDNA clone IMAGE:2988578 5' similar to gb:J03143 INTERFERON-GAMMA RECEPTOR ALPHA CHAIN PRECURSOR (HUMAN);
9582	22489	35850	1.19	1.0E-101	AA036800.1	EST_HUMAN	z29g08.r1 Soares_pregnant_liverus_NbHPU Homo sapiens cDNA clone IMAGE:471998 5' similar to PIR-S54840 S54840 YD9335.03c protein - yeast;
9870	22785	38174	0.89	1.0E-101	AB037772.1	NT	Homo sapiens mRNA for KIAA1351 protein, partial cds
9870	22785	38175	0.89	1.0E-101	AB037772.1	NT	Homo sapiens mRNA for KIAA1351 protein, partial cds
9994	21351	34688	19.03	1.0E-101	X60069.1	NT	Human mRNA for pancreatic gamma-glutamyltransferase
9994	21351	34689	19.03	1.0E-101	X60069.1	NT	Human mRNA for pancreatic gamma-glutamyltransferase
10008	22825	36213	21.09	1.0E-101	9845492	NT	Homo sapiens gamma-glutamyltransferase 1 (GGT1), transcript variant 3, mRNA
10277	23187	36579	7.02	1.0E-101	BE619667.1	EST_HUMAN	601472808T1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3876953 3'
10277	23187	36580	7.02	1.0E-101	BE619667.1	EST_HUMAN	601472808T1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3876953 3'
10406	23295	36715	0.85	1.0E-101	10863060	NT	Homo sapiens potassium channel, subfamily K, member 10 (KCNK10), mRNA
10893	23778	37205	2.04	1.0E-101	11429127	NT	Homo sapiens Janus kinase 2 (a protein tyrosine kinase) (JAK2), mRNA
10921	23806	37233	1.43	1.0E-101	AI570293.1	EST_HUMAN	h77d11.1 NCL CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2184309 3' similar to gb:M26926 KERATIN, TYPE I CYTOSKELETAL 18 (HUMAN);
10921	23806	37234	1.43	1.0E-101	AI570293.1	EST_HUMAN	h77d11.1 NCL CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2184309 3' similar to gb:M26926 KERATIN, TYPE I CYTOSKELETAL 18 (HUMAN);
11026	23910	37351	0.86	1.0E-101	BE973648.1	EST_HUMAN	601680825F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3950887 5'
11026	23910	37352	0.86	1.0E-101	BE973648.1	EST_HUMAN	601680825F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3950887 5'
11313	24232	-37679	1.68	1.0E-101	S38327.1	NT	branched-chain alpha-keto acid dehydrogenase complex E1 alpha subunit [human, Genomic, 195 nt segment 8 of 9]



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Table 4  
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Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11551	24480	37923	1.43	1.0E-101	AB020626.1	NT	Homo sapiens mRNA for KIAA0819 protein, partial cds
12176	25012	38516	1.4	1.0E-101	A1905168.1	EST_HUMAN	RC-BT163-290499-085 BT163 Homo sapiens cDNA
12176	25012	38517	1.4	1.0E-101	A1908108.1	EST_HUMAN	RC-BT163-290499-085 BT163 Homo sapiens cDNA
12701	25418		28.93	1.0E-101	AW939051.1	EST_HUMAN	QV1-DT0068-240200-085-e01 C.T0068 Homo sapiens cDNA
42	13158	26049	0.94	1.0E-102	AF012872.1	NT	Homo sapiens phosphatidylinositol 4-kinase 230 (p44K230) mRNA, complete cds
361	13448	26359	3.23	1.0E-102	AL163303.2	NT	Homo sapiens chromosome 21 segment HS21C103
643	13704	26611	2.02	1.0E-102	BE252470.1	EST_HUMAN	601108292F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3344326 5'
801	13856	26792	6.9	1.0E-102	4557534	NT	Homo sapiens down-regulated in adenoma (DRA) mRNA
1144	14186	27124	1.58	1.0E-102	M10976.1	NT	Human endogenous retroviral DNA (4-1), complete retroviral segment
1295	14328	27273	2.1	1.0E-102	11437148	NT	Homo sapiens solute carrier family 2 (facilitated glucose transporter), member 9 (SLC2A9), mRNA
1295	14328	27274	2.1	1.0E-102	11437146	NT	Homo sapiens solute carrier family 2 (facilitated glucose transporter), member 9 (SLC2A9), mRNA
1310	14343	27290	1.93	1.0E-102	4826977	NT	Homo sapiens reelin (RELN) mRNA
1441	14472	27429	74.96	1.0E-102	BE408447.1	EST_HUMAN	60129982F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3628901 5'
2330	15338	28342	1.52	1.0E-102	A1124669.1	EST_HUMAN	am60c10.x1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1639954 3' similar to
2330	15338	28343	1.52	1.0E-102	A1124669.1	EST_HUMAN	SW:GG95_HUMAN Q08379 GOLGIN-95. ;
3070	16122		0.87	1.0E-102	Y13932.1	EST_HUMAN	am60c10.x1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1639954 3' similar to
3113	16164	29059	1.54	1.0E-102	7661979	NT	Homo sapiens PRKY exon 7
3178	16228	29121	4.33	1.0E-102	AU141005.1	EST_HUMAN	Homo sapiens KIAA0187 gene product (KIAA0187), mRNA
3178	16228	29122	4.33	1.0E-102	AU141005.1	EST_HUMAN	AU141005 PLACE4 Homo sapiens cDNA clone PLACE4000650 5'
4332	17346	30211	1.76	1.0E-102	AL163207.2	NT	AU141005 PLACE4 Homo sapiens cDNA clone PLACE4000650 5'
4520	17529	30393	3.3	1.0E-102	BE251310.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C007
6263	18249	31099	1.81	1.0E-102	R66488.1	EST_HUMAN	601107843F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3343882 5'
5556	18634	31514	1.88	1.0E-102	AF087133.1	NT	Y93204.1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:140934 5'
5955	19022		5.11	1.0E-102	AB034951.1	NT	Homo sapiens protein phosphatase-1 regulatory subunit 7 (PPP1R7) gene, exon 7
5955	19080	32187	3.44	1.0E-102	7705398	NT	Homo sapiens HSC54 mRNA for heat shock cognate protein 54, complete cds
5955	19080	32188	3.44	1.0E-102	7705398	NT	Homo sapiens histone deacetylase 7 (HDAC7), mRNA
6002	19068	32193	0.86	1.0E-102	11433046	NT	Homo sapiens histone deacetylase 7 (HDAC7), mRNA
6546	18599	32776	2.63	1.0E-102	A1459825.1	EST_HUMAN	Homo sapiens heat domain and JRD 2 (HERC2), mRNA
7436	20133	33373	0.48	1.0E-102	AW451643.1	EST_HUMAN	at8209.x1 Barslead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2151765 3' similar to TR:Q13137
7496	20436	33716	0.88	1.0E-102	BET729323.1	EST_HUMAN	Q13137 NDP82. ;
7527	20466	33754	0.84	1.0E-102	BE386106.1	EST_HUMAN	U1-H-B13-aj-d-10-Q-U1.s1 NCJ CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2739835 3'
							601661505F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3831241 5'
							601277215F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3618243 5'

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Table 4  
Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
7656	20599	33866	0.44	1.0E-102	AB023177.1	NT	Homo sapiens mRNA for KIAA0980 protein, partial cds
7744	20675	33973	8.39	1.0E-102	AJ238994.1	NT	Homo sapiens mRNA for Centaurin-alpha2 protein
8072	20985	34301	2.71	1.0E-102	AV710738.1	EST_HUMAN	AV710738 Cu Homo sapiens cDNA clone CuAAKD03 5'
8378	21282	34813	0.46	1.0E-102	11420641	NT	Homo sapiens GLL-Kruppel family member GLI3 (Greig cephalopolysyndactyly syndrome) (GLI3), mRNA
8801	21731	35080	4.44	1.0E-102	BE763051.1	EST_HUMAN	QV3-NT0025-210600-236-H08 NT0025 Homo sapiens cDNA
8877	21807	35160	1.06	1.0E-102	BE910555.1	EST_HUMAN	801601107F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3903145 5'
9165	22093	35451	0.92	1.0E-102	AB007923.1	NT	Homo sapiens mRNA for KIAA0154 protein, partial cds
9489	22414	35776	0.71	1.0E-102	BE388063.1	EST_HUMAN	801283770F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3605538 5'
9488	22414	35777	0.71	1.0E-102	BE388063.1	EST_HUMAN	801283770F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3605538 5'
9793	22757	36142	0.66	1.0E-102	A1762859.1	EST_HUMAN	w63b06.x1 NCL_CGAP_Kd12 Homo sapiens cDNA clone IMAGE:2387971 3' similar to contains MER4.11
9821	22727	36110	0.93	1.0E-102	AV755942.1	EST_HUMAN	MER4 MER4 repetitive element ;
9861	22776	36162	2.23	1.0E-102	T70393.1	EST_HUMAN	AV755942 BM Homo sapiens cDNA clone BMFAUD06 5'
9861	22776	36163	2.23	1.0E-102	T70393.1	EST_HUMAN	y413d07.r1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:67021 5'
9946	22850	36238	3.57	1.0E-102	AU124629.1	EST_HUMAN	y413d07.r1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:67021 5'
10870	23756		0.63	1.0E-102	AF153715.1	NT	AU124629 NT2RM4 Homo sapiens cDNA clone NT2RM4000309 5'
10948	23832	37258	3.21	1.0E-102	A1905037.1	EST_HUMAN	Homo sapiens phospholipid scramblase 1 gene, exon 1 and 5' flanking region
10948	23832	37259	3.21	1.0E-102	A1905037.1	EST_HUMAN	RC-BT074-260489-014 BT074 Homo sapiens cDNA
11009	23893	37327	1.07	1.0E-102	AA970785.1	EST_HUMAN	RC-BT074-260489-014 BT074 Homo sapiens cDNA
11493	24405	37857	4.33	1.0E-102	AB040929.1	NT	on57h04.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1660823 3' similar to
11507	24417	37871	3.12	1.0E-102	BE897468.1	EST_HUMAN	SW:CAV2_HUMAN P51636 CAVEOLIN-2 [1];
11511	24421	37876	24.95	1.0E-102	4507822	NT	Homo sapiens mRNA for KIAA1496 protein, partial cds
11511	24421	37877	24.95	1.0E-102	4507822	NT	Homo sapiens mRNA for KIAA1496 protein, partial cds
11764	24665	38151	1.65	1.0E-102	AA868675.1	EST_HUMAN	601439392F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924168 5'
11841	24682	38181	2.94	1.0E-102	BF359243.1	EST_HUMAN	Homo sapiens UDP glycosyltransferase 2 family, polypeptide B11 (UGT2B11) mRNA
12132	24973	38477	2.25	1.0E-102	U41302.1	NT	Homo sapiens UDP glycosyltransferase 2 family, polypeptide B11 (UGT2B11) mRNA
12569	25086		10.38	1.0E-102	AL163280.2	NT	ak49h10.e1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1409347 3'
12783	25412	31788	8.06	1.0E-102	AW300862.1	EST_HUMAN	RC6-E10072-150600-011-F01-E10072 Homo sapiens cDNA
13049	25631		2.07	1.0E-102	J05235.1	NT	Human chromosome 16 creatine transporter (SLC6A8) and (CDM) paralogous genes, complete cds
72	13187	26095	3.09	1.0E-103	BE908158.1	EST_HUMAN	Homo sapiens chromosome 21 segment HS21C080
72	13187	26098	3.09	1.0E-103	BE908158.1	EST_HUMAN	xk07c12.x1 NCL_CGAP_Cc20 Homo sapiens cDNA clone IMAGE:2666038 3'

Single Exon Probes Expressed In Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
103	13216	26128	7.79	1.0E-103	D87078.2	NT	Homo sapiens mRNA for KIAA0235 protein, partial cds
221	13320	26236	1.16	1.0E-103	5453783	NT	Homo sapiens nucleolar protein (KKE/D repeat) (NOP56) mRNA
1008	14057	26999	0.8	1.0E-103	AJ278348.1	NT	Homo sapiens mRNA for pregnancy-associated plasma protein-E (PAPPE gene)
1271	14305	27256	6.95	1.0E-103	BE87541.1	EST_HUMAN	601485388F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3887876 5'
1619	14649	27612	2.27	1.0E-103	AF012872.1	NT	Homo sapiens phosphatidylinositol 4-kinase 230 (p4K230) mRNA, complete cds
1991	15009	27897	0.97	1.0E-103	4502428	NT	Homo sapiens bone morphogenetic protein 8 (osteoinductive protein 2) (BMP8) mRNA
1991	15009	27898	0.97	1.0E-103	4502428	NT	Homo sapiens bone morphogenetic protein 8 (osteoinductive protein 2) (BMP8) mRNA
2325	15333	28337	0.99	1.0E-103	AU134891.1	EST_HUMAN	AU134891 PLACE1 Homo sapiens cDNA clone PLACE1000985 5'
2475	15477	28478	1.86	1.0E-103	AF050588.1	NT	Homo sapiens promyelocytic leukemia zinc finger protein (PLZF) gene, complete cds
2636	15833	28629	0.9	1.0E-103	BF529379.1	EST_HUMAN	602041882F1 NCL_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4176429 5'
2636	15833	28630	0.9	1.0E-103	BF529379.1	EST_HUMAN	602041882F1 NCL_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4176429 5'
2665	15861	28650	1.01	1.0E-103	N32770.1	EST_HUMAN	yw91408.s1 Soares_placenta_8t69weeks_2Nbl-IP8t69W Homo sapiens cDNA clone IMAGE:259599 3'
3117	16168	29472	2.65	1.0E-103	BE744722.1	EST_HUMAN	601573113F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3834315 5'
3437	16478	29384	3.89	1.0E-103	AW298245.1	EST_HUMAN	UI-H-BWO-ajlch-11-Q-U1.s1 NCL_CGAP_Sub66 Homo sapiens cDNA clone IMAGE:2733165 3'
3501	16539	29437	1.45	1.0E-103	AB040892.1	NT	Homo sapiens mRNA for KIAA1459 protein, partial cds
3818	16848		1.87	1.0E-103	AF023861.1	NT	Macaca mulatta cyclophilin A mRNA, complete cds
3858	16887	29772	1.33	1.0E-103	AA485663.1	EST_HUMAN	ab10d12.s1 Streptococcus pneumoniae (4837210) Homo sapiens cDNA clone IMAGE:840407 3' similar to contains element L TR10 repetitive element
3903	16932	29811	1.42	1.0E-103	11430876	NT	Homo sapiens neurotrophin 1 (NRP1), mRNA
4089	17114	29992	2.92	1.0E-103	T23883.1	EST_HUMAN	seq340 b4HB3MA-Cot109+10-3lo Homo sapiens cDNA clone b4HB3MA-Cot109+10-3lo-7 3'
6159	19217	32356	0.81	1.0E-103	BF669627.1	EST_HUMAN	602185023F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310573 5'
6167	19224	32368	1.69	1.0E-103	AF179895.1	NT	Homo sapiens septin 2 (SEP2) mRNA, partial cds
6519	19563	32744	0.67	1.0E-103	11435053	NT	Homo sapiens KIAA0440 protein (KIAA0440), mRNA
6519	19563	32745	0.67	1.0E-103	11435053	NT	Homo sapiens KIAA0440 protein (KIAA0440), mRNA
8731	19766	32973	0.8	1.0E-103	AW954566.1	EST_HUMAN	EST1366636 IMAGE resequences, MAGC Homo sapiens cDNA
8731	19766	32974	0.8	1.0E-103	AW954566.1	EST_HUMAN	EST1366636 IMAGE resequences, MAGC Homo sapiens cDNA
8775	19809	33020	0.41	1.0E-103	10947051	NT	Homo sapiens ankyrin 2, neuronal (ANK2), transcript variant 1, mRNA
6878	28657	33124	1.33	1.0E-103	AA781442.1	EST_HUMAN	aj2603.s1 Soares_testis_NH1 Homo sapiens cDNA clone 1391452 3'
6922	19952	33171	1	1.0E-103	AF053490.1	NT	Homo sapiens glycine receptor alpha 2 subunit (GLRA2) gene, exon 4
7018	20044	33279	1.74	1.0E-103	AI590071.1	EST_HUMAN	tm5805.x1 NCL_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 Q13769 ANONYMOUS.
7018	20044	33280	1.74	1.0E-103	AI590071.1	EST_HUMAN	tm5805.x1 NCL_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 Q13769 ANONYMOUS.

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Table 4  
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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
7165	18437	31338	1.9	1.0E-103	5032282	NT	Homo sapiens dystrophin (muscular dystrophy, Duchenne and Becker types), includes DXS142, DXS184, DXS206, DXS230, DXS239, DXS268, DXS269, DXS270, DXS272 (DMD), transcript variant Dp427m, mRNA
7165	18437	31339	1.9	1.0E-103	5032282	NT	Homo sapiens dystrophin (muscular dystrophy, Duchenne and Becker types), includes DXS142, DXS184, DXS206, DXS230, DXS239, DXS268, DXS269, DXS270, DXS272 (DMD), transcript variant Dp427m, mRNA
7308	18476	31296	1.19	1.0E-103	11431100	NT	Homo sapiens ribosomal protein, L3-like (RPL3L), mRNA
7384	20377	33646	1.06	1.0E-103	AJ289880.1	NT	Homo sapiens KIAA0851 gene (partial), XT3 gene and LZTFL1 gene
7598	20532	33823	1.37	1.0E-103	AW965776.1	EST_HUMAN	EST1377849 MAGI resequenced, MAGI Homo sapiens cDNA
7719	20651	33945	3.71	1.0E-103	BE748158.1	EST_HUMAN	601571537F1NH_MGC_55 Homo sapiens cDNA clone IMAGE:3838545 5'
8244	21149	34482	4.16	1.0E-103	AI590071.1	EST_HUMAN	tm88605.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 Q13769 ANONYMOUS.;
8244	21149	34483	4.16	1.0E-103	AI590071.1	EST_HUMAN	tm88605.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 Q13769 ANONYMOUS.;
9181	22109	35467	1.07	1.0E-103	AU140344.1	EST_HUMAN	AU140344 PLAGE2 Homo sapiens cDNA clone PLACE2000374 5'
9181	22109	35468	1.07	1.0E-103	AU140344.1	EST_HUMAN	AU140344 PLAGE2 Homo sapiens cDNA clone PLACE2000374 5'
9261	22189	35546	1.25	1.0E-103	BF109244.1	EST_HUMAN	7160603.x1 Scores_NSF_F8_gw_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3525894 3' similar to SIW:PTNF_HUMAN Q16825 PROTEIN-TYROSINE PHOSPHATASE D1;
9652	22578	35949	3.52	1.0E-103	6006921	NT	Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA
9652	22578	35950	3.52	1.0E-103	6006921	NT	Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA
9691	22617	35992	0.8	1.0E-103	AA581086.1	EST_HUMAN	nd13c02.st NCI_CGAP_Ov1 Homo sapiens cDNA clone IMAGE:800162 3' similar to gb:L02428 26S PROTEASE SUBUNIT 4 (HUMAN);
9731	22856	36038	3.28	1.0E-103	AA774980.1	EST_HUMAN	ae84d12.st Striatogene schizo brain S11 Homo sapiens cDNA clone IMAGE:970871 3' similar to gb:X03747_cds1 SODIUMPOTASSIUM-TRANSPORTING ATPASE BETA-1 (HUMAN);
10560	23449	36868	1.79	1.0E-103	Z37876.1	NT	H.sapiens mRNA for latent transforming growth factor-beta binding protein (LTBP-2)
10601	23487	36916	2.33	1.0E-103	AW983676.1	EST_HUMAN	EST375748 MAGI resequenced, MAGI Homo sapiens cDNA
10732	23618	37046	11.24	1.0E-103	AI878959.1	EST_HUMAN	au51904.Y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2518328 5' similar to TR:O15046 KIAA0339;
11174	24101	37547	4.8	1.0E-103	AI792769.1	EST_HUMAN	ai02606.Y5 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1622283 5' similar to TR:Q62084 Q62084 PHOSPHOLIPASE C NEIGHBORING;
11273	24195	37647	1.76	1.0E-103	11424061	NT	Homo sapiens AXL receptor tyrosine kinase (AXL), mRNA
11273	24195	37648	1.76	1.0E-103	11424061	NT	Homo sapiens AXL receptor tyrosine kinase (AXL), mRNA
11813	24734	38225	9.93	1.0E-103	AU136283.1	EST_HUMAN	AU136283 PLAGE1 Homo sapiens cDNA clone PLACE1003923 5'
11879	23879	37417	3.52	1.0E-103	IL43810.1	NT	Homo sapiens polycystic kidney disease (PKD1) gene, exons 27-30

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
12096	24937		1.43	1.0E-103	AB024759.1	NT	Homo sapiens TSA305 gene, exon 10
12167	25003	38505	2.66	1.0E-103	BE644611.1	EST_HUMAN	7e68a10.x1 Sceres_NSF_F8_p1W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3287610 3' similar to contains MER29.13 MER29 repetitive element;
12264	25082		2.32	1.0E-103	AF224669.1	NT	Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds.
12295	25105		1.59	1.0E-103	11626291	NT	Homo sapiens hypophyseal protein FLJ20454 (FLJ20454), mRNA
12473	25219	31855	2.92	1.0E-103	AB011399.1	NT	Homo sapiens gene for AF-6, complete cds
252	13350	26263	4.51	1.0E-104	AL037549.3	EST_HUMAN	DKFZp564H1072.1 1 664 (synonym: hibr2) Homo sapiens cDNA clone DKFZp564H1072 5'
252	13350	26264	4.51	1.0E-104	AL037549.3	EST_HUMAN	DKFZp564H1072.1 1 664 (synonym: hibr2) Homo sapiens cDNA clone DKFZp564H1072 5'
1908	14828	27806	1.72	1.0E-104	4502428	NT	Homo sapiens bone morphogenetic protein 8 (osteogenic protein 2) (BMP8) mRNA
2209	15220	28223	3.87	1.0E-104	AA132976.1	EST_HUMAN	zo22c06.s1 Stratagene codon (#937204) Homo sapiens cDNA clone IMAGE:597626 3' similar to gb:Z14118.mn1 CD59 GLYCOPROTEIN PRECURSOR (HUMAN);
2219	15229	28235	2.03	1.0E-104	BE744928.1	EST_HUMAN	601577460F1 NIH_MGC 9 Homo sapiens cDNA clone IMAGE:3928438 5'
2392	15397	28400	1.98	1.0E-104	BF334221.1	EST_HUMAN	RC1-CT0249-110900-214-f12 CT0249 Homo sapiens cDNA
2392	15397	28401	1.98	1.0E-104	BF334221.1	EST_HUMAN	RC1-CT0249-110900-214-f12 CT0249 Homo sapiens cDNA
2460	15484	28481	1.69	1.0E-104	5031570	NT	Homo sapiens ARP2 (actin-related protein 2, yeast) homolog (ACTR2), mRNA
2527	15528	28528	1.11	1.0E-104	7662125	NT	Homo sapiens KIAA0440 protein (KIAA0440), mRNA
2527	15528	28530	1.11	1.0E-104	7662125	NT	Homo sapiens KIAA0440 protein (KIAA0440), mRNA
2914	15987	28866	11.86	1.0E-104	M34671.1	NT	Human lymphocytic antigen CD59/MEM43 mRNA, complete cds
2959	16011		2.91	1.0E-104	Y11151.1	NT	Human gene encoding phenylpyruvate tautomerase II
3308	16355	29267	1.31	1.0E-104	AU133926.1	EST_HUMAN	AU133926 OVARC1 Homo sapiens cDNA clone OVARC100936 5'
3450	16491		2.35	1.0E-104	AA319436.1	EST_HUMAN	EST21658 Adrenal gland tumor Homo sapiens cDNA 5' end
3663	16697	29593	0.85	1.0E-104	AB033102.1	NT	Homo sapiens mRNA for KIAA1276 protein, partial cds
3663	16697	29594	0.85	1.0E-104	AB033102.1	NT	Homo sapiens mRNA for KIAA1276 protein, partial cds
4020	17047	29936	1.19	1.0E-104	AB032988.1	NT	Homo sapiens mRNA for KIAA1172 protein, partial cds
4226	17242	30110	0.75	1.0E-104	F11745.1	EST_HUMAN	HSC31A071 normalized infant brain cDNA Homo sapiens cDNA clone c-31a07
4484	17495	30355	8.96	1.0E-104	X02761.1	NT	Human mRNA for fibronectin (FN precursor)
4719	17724	30586	0.93	1.0E-104	AF231920.1	NT	Homo sapiens chromosome 21 unknown mRNA
4719	17724	30587	0.93	1.0E-104	AF231920.1	NT	Homo sapiens chromosome 21 unknown mRNA
5295	18280	31130	1.26	1.0E-104	4502152	NT	Homo sapiens apolipoprotein B (including Ag(x) antigen) (APOB) mRNA
5339	18322	31171	1.08	1.0E-104	7657039	NT	Homo sapiens death receptor 6 (DR6), mRNA
6165	19222	32364	0.82	1.0E-104	U43379.1	NT	Human Down Syndrome region of chromosome 21 DNA
6165	19222	32365	0.82	1.0E-104	U43379.1	NT	Human Down Syndrome region of chromosome 21 DNA
6217	19272	32426	1.03	1.0E-104	AB017332.1	NT	Homo sapiens alk3 mRNA for Aurora/pl-related kinase 3, complete cds

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6740	19774	32985	7.79	1.0E-104	AI768797.1	EST_HUMAN	wj03b12.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2401727 3' similar to TR:Q14145 Q14145 KIAA0132 PROTEIN.; contains element L TR7 repetitive element ;
6740	19774	32986	7.79	1.0E-104	AI768797.1	EST_HUMAN	wj03b12.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2401727 3' similar to TR:Q14145 Q14145 KIAA0132 PROTEIN.; contains element L TR7 repetitive element ;
6940	19989	33192	0.81	1.0E-104	7706512	NT	Homo sapiens PDZ domain-containing guanine nucleotide exchange factor 1 (LOC51735), mRNA
7114	20318	33581	0.38	1.0E-104	BE314182.1	EST_HUMAN	601150451F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3503220 5'
7114	20318	33582	0.38	1.0E-104	BE314182.1	EST_HUMAN	601150451F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3503220 5'
7594	20530	33821	2.1	1.0E-104	11425572	NT	Homo sapiens Trio isoform mRNA, complete cds
9159	22087	35446	1	1.0E-104	BF509244.1	EST_HUMAN	UI-H-B14-aw-b-09-0-UI.s1 NCI_CGAP_Sub88 Homo sapiens cDNA clone IMAGE:3086178 3'
9710	22835	36016	2.7	1.0E-104	BF448230.1	EST_HUMAN	ned18g11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3365948 3'
9824	22730		1.24	1.0E-104	T74219.1	EST_HUMAN	yc83102.11 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:22440 5'
9855	22770	36165	6.42	1.0E-104	AF091395.1	NT	Homo sapiens Trio isoform mRNA, complete cds
9855	22770	36156	5.42	1.0E-104	AF091395.1	NT	Homo sapiens Trio isoform mRNA, complete cds
9974	21332	34683	5.18	1.0E-104	BF352841.1	EST_HUMAN	IL3-HT0619-080900-249-F07 HT0619 Homo sapiens cDNA
9974	21332	34686	5.18	1.0E-104	BF352841.1	EST_HUMAN	IL3-HT0619-080900-249-F07 HT0619 Homo sapiens cDNA
10274	23184	36576	0.85	1.0E-104	AW103848.1	EST_HUMAN	xd76d02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2603523 3' similar to TR:Q24118 Q24118 HYPOTHETICAL 29.4 KD PROTEIN. ;
10274	23184	36577	0.85	1.0E-104	AW103848.1	EST_HUMAN	xd76d02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2603523 3' similar to TR:Q24118 Q24118 HYPOTHETICAL 29.4 KD PROTEIN. ;
10595	23481	36909	3.71	1.0E-104	BE797173.1	EST_HUMAN	601581503F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3935977 5'
10595	23481	36910	3.71	1.0E-104	BE797173.1	EST_HUMAN	601581503F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3935977 5'
10885	23770	37195	1.53	1.0E-104	AV728070.1	EST_HUMAN	AV728070 HTC Homo sapiens cDNA clone HTCBYA07 5'
10922	23807	37235	4.14	1.0E-104	AU130785.1	EST_HUMAN	AU130765 NT2RP3 Homo sapiens cDNA clone NT2RP3001398 5'
11029	23913	37353	5.19	1.0E-104	U66535.1	NT	Human beta4-integrin (ITGB4) gene, exons 19,20,21,22,23,24 and 25
11040	23924		0.77	1.0E-104	11427757	NT	Homo sapiens KIAA0649 gene product (KIAA0649), mRNA
11743	24645	38124	2.38	1.0E-104	BE720191.1	EST_HUMAN	RC0-HT0885-310700-021-b08 HT0885 Homo sapiens cDNA
11743	24645	38125	2.38	1.0E-104	BE720191.1	EST_HUMAN	RC0-HT0885-310700-021-b08 HT0885 Homo sapiens cDNA
11771	24671	38159	2.65	1.0E-104	BF684288.1	EST_HUMAN	602141215F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4302807 5'
13013	25560		1.5	1.0E-104	BE369802.1	EST_HUMAN	601312181F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3658676 5'
298	15842	26310	2.94	1.0E-105	4502168	NT	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA
448	13115	28001	10.72	1.0E-105	4505150	NT	Homo sapiens Meis1 (mouse) homolog (MEIS1) mRNA
616	13680	26582	2.87	1.0E-105	AF032897.1	NT	Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds
615	13680	26583	2.87	1.0E-105	AF032897.1	NT	Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1706	14735		2.14	1.0E-105	AB020381.1	NT	Homo sapiens mRNA for cyclin B2, complete cds
1734	14761	27731	1.25	1.0E-105	AL163247.2	NT	Homo sapiens chromosome 21 segment HS21C047
1844	14857	27849	2.79	1.0E-105	AL163280.2	NT	Homo sapiens chromosome 21 segment HS21C080
1841	14992	27940	6.41	1.0E-105	D30918.1	NT	Human mRNA for KIAA0128 gene, partial cds
2205	15216	28220	1.81	1.0E-105	AA318369.1	EST_HUMAN	EST20609 Spleen1 Homo sapiens cDNA 5' end similar to autoimmune antigen Ku, p70/p80 subunit
2768	15260		1.01	1.0E-105	AA584808.1	EST_HUMAN	no1005.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:100265 3'
3050	16102		3.87	1.0E-105	AJ229041.1	NT	Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3
3373	16417	29318	1.07	1.0E-105	BF347753.1	EST_HUMAN	602022595F1 NCI_CGAP_Brim7 Homo sapiens cDNA clone IMAGE:4158143 5'
3373	16417	29319	1.07	1.0E-105	BF347753.1	EST_HUMAN	Homo sapiens bromodomain adjacent to zinc finger domain, 2B (BAZ2B), mRNA
3400	16442	29348	0.8	1.0E-105	7304922	NT	Homo sapiens bromodomain adjacent to zinc finger domain, 2B (BAZ2B), mRNA
3400	16442	29348	0.8	1.0E-105	7304922	NT	Homo sapiens dermatopontin (DPT), mRNA
3712	16744		1	1.0E-105	11425532	NT	Homo sapiens chromosome 21 segment HS21C008
4188	17208	30074	2.19	1.0E-105	AW981698.1	EST_HUMAN	EST373761 MAGG resequenced, MAGG Homo sapiens cDNA
4857	17859	30723	0.8	1.0E-105	BE688881.1	EST_HUMAN	601445823F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3850166 5'
4857	17859	30724	0.8	1.0E-105	BE688881.1	EST_HUMAN	601445823F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3850166 5'
4873	17872	30736	0.66	1.0E-105	AA699335.1	EST_HUMAN	Z144g02.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:433682 3'
5051	18048		6.19	1.0E-105	AL163208.2	NT	Homo sapiens chromosome 21 segment HS21C008
5248	18235	31085	1.09	1.0E-105	AB018339.1	NT	Homo sapiens mRNA for KIAA0706 protein, partial cds
5332	18316	31164	1.35	1.0E-105	7656966	NT	Homo sapiens calpain-like protease (CANPX), mRNA
5513	18592	31440	1.14	1.0E-105	AF016704.1	NT	Homo sapiens E6-AP ubiquitin-protein ligase (UBE3A) gene, exon 2
5582	18659		1	1.0E-105	11420134	NT	Homo sapiens Relina-derived POU-domain factor-1 (RPF-1), mRNA
7233	20142	33380	1.26	1.0E-105	BF314302.1	EST_HUMAN	601901028F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4130334 5'
7233	20142	33381	1.26	1.0E-105	BF314302.1	EST_HUMAN	601901028F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4130334 5'
7322	18490	31262	3.66	1.0E-105	11419196	NT	Homo sapiens GTPase activating protein-like (GAPL), mRNA
7322	18490	31263	3.66	1.0E-105	11419196	NT	Homo sapiens GTPase activating protein-like (GAPL), mRNA
7373	20397	33636	0.62	1.0E-105	AW951634.1	EST_HUMAN	EST363686 MAGG resequenced, MAGB Homo sapiens cDNA
7863	20587	33896	0.98	1.0E-105	BE902616.1	EST_HUMAN	601677270F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3960019 6'
8415	21317	34849	0.43	1.0E-105	L07627.1	NT	Homo sapiens protein-tyrosine phosphatase mRNA, complete cds
8441	21373	34714	1.14	1.0E-105	X12556.1	NT	Human mRNA for dbl proto-oncogene
8606	21537	34878	7.42	1.0E-105	T03087.1	EST_HUMAN	EST02875 Fetal brain, Striatum (cat#836206) Homo sapiens cDNA clone HFCR32
8968	21893	35254	1.16	1.0E-105	AW007194.1	EST_HUMAN	ws50c10.x1 NCI_CGAP_Bim25 Homo sapiens cDNA clone IMAGE:2500626 3' similar to
9483	22411	35772	0.77	1.0E-105	AW840817.1	EST_HUMAN	SW:ACSA_PENCH_P36333 ACETYL-COENZYME A SYNTHETASE ;
9603	22523	35898	3.15	1.0E-105	AW016878.1	EST_HUMAN	RC1-CN0008-070100-011-e05;CN0008 Homo sapiens cDNA
							UHH-B10p-abi-b-12-Q-U1.s1 NCI_CGAP_Sub2 Homo sapiens cDNA clone IMAGE:2711782 3'

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Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
9746	22689	36051	1.05	1.0E-105	AW892372.1	EST_HUMAN	QV2-OT0062-140300-083-d09 OT0062 Homo sapiens cDNA
9746	22689	36052	1.05	1.0E-105	AW892372.1	EST_HUMAN	QV2-OT0062-140300-083-d09 OT0062 Homo sapiens cDNA
10096	22946	36333	0.68	1.0E-105	BE867793.1	EST_HUMAN	601443755F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847884 5'
10096	22946	36334	0.68	1.0E-105	BE867793.1	EST_HUMAN	601443755F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847884 5'
11370	24287	37732	5.44	1.0E-105	AF254822.1	NT	Homo sapiens SMARCA4 isoform (SMARCA4) gene, complete cds, alternatively spliced
11679	24583	38060	1.95	1.0E-105	D93548.1	NT	Homo sapiens COL4A6 gene for $\alpha 6$ (IV) collagen, exon 31
11727	24628	38109	1.98	1.0E-105	7705936	NT	Homo sapiens Ran binding protein 11 (LOC51194), mRNA
12018	24860	38360	2.59	1.0E-105	AW027554.1	EST_HUMAN	w7467.x1 Soares_thymus_NH7Th Homo sapiens cDNA clone IMAGE:2535301 3' similar to TR:P87892 P97892 PROTEASE
12220	25054	38553	1.41	1.0E-105	BE314293.1	EST_HUMAN	601152198F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3508463 5'
161	13262		1.45	1.0E-106	AW503208.1	EST_HUMAN	U1-HF-BNO-akt-g-07-Q-U1.1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078348 5'
218	13317	26234	1.68	1.0E-106	AI565095.1	EST_HUMAN	lq79e01.x1 NCL_CGAP_U1 Homo sapiens cDNA clone IMAGE:2215008 3'
565	13634	26544	2.1	1.0E-106	AW965356.1	EST_HUMAN	EST377628 MAGE resequences; MAGI Homo sapiens cDNA
628	13691	26595	0.94	1.0E-106	J00146.1	NT	Human dihydrofolate reductase pseudogene (psl-hd1)
629	13691	26595	1.7	1.0E-106	J00146.1	NT	Human dihydrofolate reductase pseudogene (psl-hd1)
1547	14578	27538	3.05	1.0E-106	AF145712.1	NT	Homo sapiens soluble neuropilin-1 mRNA, complete cds
1728	14755	27725	5.29	1.0E-106	U48724.1	NT	Human epidermal growth factor receptor (EGFR) precursor-mRNA, exon 4, partial cds
1748	14775	27744	2.26	1.0E-106	U04510.1	NT	Homo sapiens type IV collagen $\alpha$ 1(V) chain (COL4A6) gene, exon 41
1825	14849	27824	4.19	1.0E-106	AA527446.1	EST_HUMAN	ng41c05.s1 NCL_CGAP_Co3 Homo sapiens cDNA clone IMAGE:937352 3' similar to contains element LTR3 repetitive element
1825	14849	27825	4.19	1.0E-106	AA527446.1	EST_HUMAN	ng41c05.s1 NCL_CGAP_Co3 Homo sapiens cDNA clone IMAGE:937352 3' similar to contains element LTR3 repetitive element
2136	15149	28150	2.12	1.0E-106	BE144286.1	EST_HUMAN	MRO-HT0165-140200-008-d10 HT0165 Homo sapiens cDNA
2338	15346	28350	4.28	1.0E-106	4504184	NT	Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA
2526	16530	28532	3.16	1.0E-106	AF003528.1	NT	Homo sapiens X-linked anthracycline octodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions
2643	15639	28638	1.67	1.0E-106	U84676.2	NT	Homo sapiens sperm membrane protein BS-63 mRNA, complete cds
2645	15641	28640	2.08	1.0E-106	BE260201.1	EST_HUMAN	601148783F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3502491 5'
2807	15798	28798	5.86	1.0E-106	AI270526.1	EST_HUMAN	q78h10.x1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:1878307 3'
2873	14493	27443	3.38	1.0E-106	4504184	NT	Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA
2873	14493	27444	3.38	1.0E-106	4504184	NT	Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA
2963	16034	28936	7.13	1.0E-106	AB037747.1	NT	Homo sapiens mRNA for KIAA1326 protein, partial cds
2963	16034	28937	7.13	1.0E-106	AB037747.1	NT	Homo sapiens mRNA for KIAA1326 protein, partial cds
3223	16271	29170	2.57	1.0E-106	8522965	NT	Homo sapiens hypothetical protein FLJ11273 (FLJ11273), mRNA



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Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3223	19271	29171	2.57	1.0E-106	8922965	NT	Homo sapiens hypothetical protein FLJ11273 (FLJ11273), mRNA
3432	16473	29380	0.74	1.0E-106	AB008581.1	NT	Homo sapiens gene for activin receptor type IIB, complete cds
3502	16540	29438	0.96	1.0E-106	AB033104.1	NT	Homo sapiens mRNA for KIAA1278 protein, partial cds
3502	16540	29439	0.96	1.0E-106	AB033104.1	NT	Homo sapiens mRNA for KIAA1278 protein, partial cds
4122	17146	30018	7.5	1.0E-106	AW974650.1	EST_HUMAN	EST1386875 IMAGE resequenced, MAGN Homo sapiens cDNA
4122	17146	30019	7.5	1.0E-106	AW974650.1	EST_HUMAN	EST1386875 IMAGE resequenced, MAGN Homo sapiens cDNA
4143	17164	30038	0.96	1.0E-106	5729729	NT	Homo sapiens API6-like 1 (API5L1), mRNA
4711	17716	30578	1.62	1.0E-106	BE144286.1	EST_HUMAN	MRO-HT0165-140200-008-410/HT0165 Homo sapiens cDNA (GC*IS)=vitamin D-binding protein/group specific component [human, peripheral blood leukocytes, Genomic, 2126 nt, segment 5 of 9]
5409	18390	31229	1.13	1.0E-106	S67479.1	NT	2126 nt, segment 5 of 9]
5554	18632	31511	3.07	1.0E-106	AA781155.1	EST_HUMAN	aj24809.s1 Soares, testis_NHT Homo sapiens cDNA clone 1391225 3' similar to gb:X12433 PROTEIN
6068	19129	32261	0.72	1.0E-106	AU130113.1	EST_HUMAN	PHPS1-2 (HUMAN);
6068	19129	32262	0.72	1.0E-106	AU130113.1	EST_HUMAN	AU130113 NT2RP3 Homo sapiens cDNA clone NT2RP3000274 5'
6124	19183	32318	0.48	1.0E-106	AA434188.1	EST_HUMAN	AU130113 NT2RP3 Homo sapiens cDNA clone NT2RP3000274 5'
6226	19280	32434	0.76	1.0E-106	AU143428.1	EST_HUMAN	zw28d12.s1 Soares ovary tumor NBH07 Homo sapiens cDNA clone IMAGE:770615 3'
6225	19280	32435	0.76	1.0E-106	AU143428.1	EST_HUMAN	AU143428 Y79AA1 Homo sapiens cDNA clone Y79AA1001912 5'
6339	19389	32558	19.74	1.0E-106	BF879574.1	EST_HUMAN	AU143428 Y79AA1 Homo sapiens cDNA clone Y79AA1001912 5'
6451	19497	32672	0.71	1.0E-106	BE897112.1	EST_HUMAN	602154012F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4285087 5'
6661	19497	32672	0.57	1.0E-106	BE897112.1	EST_HUMAN	601439870F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924641 5'
6686	19722	32922	17.61	1.0E-106	11545913	NT	601439870F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924641 5'
6988	19722	32923	17.61	1.0E-106	11545913	NT	Homo sapiens xylosyltransferase II (XT2), mRNA
7763	20693	33992	5.57	1.0E-106	AA663779.1	EST_HUMAN	Homo sapiens xylosyltransferase II (XT2), mRNA
7825	20754	34057	4.64	1.0E-106	11429617	NT	ae72e07.s1 Strathgore schizo brain S11 Homo sapiens cDNA clone IMAGE:968732 3' similar to gb:X65873
7826	20848	34153	1.43	1.0E-106	BE292722.1	EST_HUMAN	KINESIN HEAVY CHAIN (HUMAN);
8055	20968	34283	9.4	1.0E-106	11425503	NT	Homo sapiens XPMG2 protein (LOC57109), mRNA
8055	20968	34284	9.4	1.0E-106	11425503	NT	601105736F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2888345 5'
8310	21214	34551	0.48	1.0E-106	AW163047.1	EST_HUMAN	Homo sapiens sorting nexin 11 (SNX11), mRNA
8336	21241	34573	0.44	1.0E-106	AU116850.1	EST_HUMAN	Homo sapiens sorting nexin 11 (SNX11), mRNA
8564	21495	34837	4.69	1.0E-106	BE741408.1	EST_HUMAN	Homo sapiens sorting nexin 11 (SNX11), mRNA
8564	21495	34838	4.69	1.0E-106	BE741408.1	EST_HUMAN	au9106.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783648 5' similar to TR:O75834
							O75834 CULLIN-4A;
							AU116850 HEMBA1 Homo sapiens cDNA clone HEMBA1000129 5'
							601594331F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3948483 5'
							601594331F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3948483 5'

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8753	21683	35026	1.77	1.0E-106	AI523066.1	EST_HUMAN	at68a07.x1 Barstead aorta HPLR86 Homo sapiens cDNA clone IMAGE:2127732 3' similar to gb:X06233 CALGRANULIN B (HUMAN);
8764	22192	35550	3.96	1.0E-106	AI654123.1	EST_HUMAN	t62a05.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2283632 3' similar to SW:ICAG_HUMAN Q05084.69 KD ISLET CELL AUTOANTIGEN;
8269	22187	35554	0.55	1.0E-106	AI991109.1	EST_HUMAN	wd38c03.x1 Soares_Dieckgraefe_colon_NHCD Homo sapiens cDNA clone IMAGE:2522308 3' similar to TR:O70273 O70273 ETS HOMOLOGOUS FACTOR;
9690	22616	35990	2.87	1.0E-106	AA825307.1	EST_HUMAN	o687e08.s1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1354780 3'
9690	22616	35991	2.87	1.0E-106	AA825307.1	EST_HUMAN	o687e08.s1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1354780 3'
9826	22732	36114	1.12	1.0E-106	AI750447.1	EST_HUMAN	cn03a04.y1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn03a04 random tm41102.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2160699 3' similar to contains MSR1.13 TAR1 PTR5 repetitive element;
9963	22868	36257	1.99	1.0E-106	AI479560.1	EST_HUMAN	tm41102.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2160699 3' similar to contains MSR1.13 TAR1 PTR5 repetitive element;
9963	22868	36258	1.99	1.0E-106	AI479560.1	EST_HUMAN	tm41102.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2160699 3' similar to contains MSR1.13 TAR1 PTR5 repetitive element;
10507	23394	36806	0.87	1.0E-106	BE389234.1	EST_HUMAN	601282387F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3604217 8'
10586	23472	36898	1.43	1.0E-106	BF027310.1	EST_HUMAN	601671674F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3954403 5'
10586	23472	36899	1.43	1.0E-106	BF027310.1	EST_HUMAN	601671674F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3954403 5'
10735	23621	37051	6.89	1.0E-106	AA604417.1	EST_HUMAN	np57b10.s1 NCL_CGAP_Br2 Homo sapiens cDNA clone IMAGE:1130395 3'
10735	23621	37052	6.89	1.0E-106	AA604417.1	EST_HUMAN	np57b10.s1 NCL_CGAP_Br2 Homo sapiens cDNA clone IMAGE:1130395 3'
10777	23683	37091	0.82	1.0E-106	AW363289.1	EST_HUMAN	RC0-CT0318-201189-031-e11 CT0318 Homo sapiens cDNA
10940	23825	37252	0.84	1.0E-106	AL039886.1	EST_HUMAN	DKFZp434F0712_r1.434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434F0712 5'
11052	23936	37375	2.43	1.0E-106	AI482022.2	NT	Homo sapiens chromosome 21 segment HS21C002
11334	24253	37690	5.36	1.0E-106	BF032755.1	EST_HUMAN	601463461F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3857366 5'
11334	24253	37691	5.36	1.0E-106	BF032755.1	EST_HUMAN	601463461F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3857366 5'
11502	24412	37868	1.85	1.0E-106	J05200.1	NT	Human ryanodine receptor mRNA, complete cds
11502	24412	37867	1.85	1.0E-106	J05200.1	NT	Human ryanodine receptor mRNA, complete cds
11976	24819	38311	1.77	1.0E-106	BE010882.1	EST_HUMAN	RC5-BN0192-100600-021-B02 BN0192 Homo sapiens cDNA
11976	24819	38312	1.77	1.0E-106	BE010882.1	EST_HUMAN	RC5-BN0192-100600-021-B02 BN0192 Homo sapiens cDNA
12336	25760		4.53	1.0E-106	AW410405.1	EST_HUMAN	fn05h11.x1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2881044 5'
12536	25259	31833	3.18	1.0E-106	BE894488.1	EST_HUMAN	601433087F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918524 5'
12536	25259	31834	3.18	1.0E-106	BE894488.1	EST_HUMAN	601433087F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918524 5'
12741	25381		4.58	1.0E-106	BE695905.1	EST_HUMAN	RC1-CT0249-090800-024-095 CT0249 Homo sapiens cDNA
253	13351		4.7	1.0E-107	AJ271735.1	NT	Homo sapiens Xq pseudautosomal region, segment 1/2
284	13378		1.37	1.0E-107	X60459.1	NT	Human IFNAR gene for interferon alpha/beta receptor

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
654	13715	26625	1.8	1.0E-107	AF155103.1	NT	Homo sapiens NY-REN-25 antigen mRNA, partial cds
839	13893	26830	1.15	1.0E-107	X60459.1	NT	Human IFNAR gene for interferon alpha/beta receptor
911	13983	26910	1.42	1.0E-107	X60459.1	NT	Human IFNAR gene for interferon alpha/beta receptor
995	14045	26988	10	1.0E-107	AF154121.1	NT	Homo sapiens sodium-dependent high-affinity dicarboxylate transporter (NADC3) mRNA, complete cds
1304	14337	27285	1.19	1.0E-107	AB032263.1	NT	Homo sapiens BAZ1B mRNA for bromodomain adjacent to zinc finger domain 1B, complete cds
1589	14620	27682	3.09	1.0E-107	BF087405.1	EST_HUMAN	QV2-HT0540-120600-358-a05 HT0540 Homo sapiens cDNA
1777	14803	27771	2.87	1.0E-107	AF138275.1	NT	Homo sapiens calthepsin Z precursor (CTSZ) gene, exon 3
1864	14886	27868	0.91	1.0E-107	AB007922.2	NT	Homo sapiens mRNA for KIAA0453 protein, partial cds
1894	14898	27867	0.81	1.0E-107	AB007922.2	NT	Homo sapiens mRNA for KIAA0453 protein, partial cds
2223	15233	28240	1.25	1.0E-107	U13729.1	NT	Human dipeptidyl peptidase IV (CD26) gene, exon 20
2385	15390	28393	1.89	1.0E-107	AW842451.1	EST_HUMAN	PM1-CN0031-180100-001-d03 CN0031 Homo sapiens cDNA
2385	15390	28394	1.89	1.0E-107	AW842451.1	EST_HUMAN	PM1-CN0031-180100-001-d03 CN0031 Homo sapiens cDNA
2562	15561	28562	1.52	1.0E-107	BE732460.1	EST_HUMAN	601567619F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3842309 5'
2562	15561	28563	1.52	1.0E-107	BE732460.1	EST_HUMAN	601567619F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3842309 5'
3051	16103	29006	3.08	1.0E-107	AW842451.1	EST_HUMAN	PM1-CN0031-180100-001-d03 CN0031 Homo sapiens cDNA
3051	16103	29007	3.08	1.0E-107	AW842451.1	EST_HUMAN	PM1-CN0031-180100-001-d03 CN0031 Homo sapiens cDNA
3147	16197	29090	2.44	1.0E-107	5902097	NT	Homo sapiens SMT3 (suppressor of mit two 3, yeast) homolog 2 (SMT3H2), mRNA
3900	16928	29807	6.95	1.0E-107	AF020671.1	NT	Homo sapiens myotubularin (MTM1) gene, exon 9
3976	17004	29891	2.52	1.0E-107	M18816.1	NT	Human apolipoprotein B-100 (apoB) gene, exon 10
3976	17004	29892	2.52	1.0E-107	M18816.1	NT	Human apolipoprotein B-100 (apoB) gene, exon 10
6819	18891	32004	0.96	1.0E-107	AW660038.1	EST_HUMAN	EST381115 IMAGE resequences, MAGK Homo sapiens cDNA
6080	19141	32277	3.32	1.0E-107	BE887469.1	EST_HUMAN	601442558F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3846484 5'
7251	20160	33399	0.5	1.0E-107	11431469	NT	Homo sapiens general transcription factor IIIC, polypeptide 1 (alpha subunit, 220kD) (GTF3C1), mRNA
7251	20160	33400	0.5	1.0E-107	11431469	NT	Homo sapiens general transcription factor IIIC, polypeptide 1 (alpha subunit, 220kD) (GTF3C1), mRNA
7755	20635	33984	1.54	1.0E-107	AW603913.1	EST_HUMAN	UI-HF-BN0-alf-c-08-Q-UI-1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079310 5'
7755	20635	33985	1.54	1.0E-107	AW603913.1	EST_HUMAN	UI-HF-BN0-alf-c-08-Q-UI-1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079310 5'
7994	20876	34187	1.13	1.0E-107	AI765076.1	EST_HUMAN	wt556n04.x1 NC1 CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2384761 3'
8195	21102	34432	0.67	1.0E-107	AJ404468.1	NT	Homo sapiens mRNA for dynein heavy chain (DNAH9 gene)
8195	21102	34433	0.67	1.0E-107	AJ404468.1	NT	Homo sapiens mRNA for dynein heavy chain (DNAH9 gene)
8277	21182	34520	0.61	1.0E-107	AW410961.1	EST_HUMAN	fn09d11.x2 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2964524 5'
9924	22912	36301	0.88	1.0E-107	AU122469.1	EST_HUMAN	AU122469 MAMMA1 Homo sapiens cDNA clone MAMMA1002433 5'

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Table 4

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Description
11147	24076	37524	3.33	1.0E-107	AI392850.1	EST_HUMAN	ig10d06.x1 NCL CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2108363 3' similar to SW:AACT_DICD1
11386	24332	37749	1.75	1.0E-107	L49141.1	NT	P05095 ALPHA-ACTININ 3, NON MUSCULAR
11397	24313	37759	1.98	1.0E-107	BF66651.1	EST_HUMAN	Homo sapiens neuroendocrine-specific protein (NSP) gene, exon 4
11766	24667	38163	7.75	1.0E-107	BE54050.1	EST_HUMAN	602123963F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4281039 5'
11831	23968	37401	6.29	1.0E-107	11419701	NT	601066681F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3432829 5'
12103	24944	38447	6.27	1.0E-107	AV712896.1	EST_HUMAN	Homo sapiens HSPC049 protein (HSPC049), mRNA
12152	24991	38491	5.88	1.0E-107	4507822	NT	Homo sapiens HSPC049 protein (HSPC049), mRNA
12218	25052	38551	3.36	1.0E-107	4506970	NT	AV712898 DCA Homo sapiens cDNA clone DCAAWC01 5'
12218	25052	38552	3.36	1.0E-107	4506970	NT	Homo sapiens UDP glycosyltransferase 2 family, polypeptide B11 (UGT2B11) mRNA
12395	25833		7.77	1.0E-107	AA001415.1	EST_HUMAN	Homo sapiens solute carrier family 10 (sodium/bile acid cotransporter family), member 1 (SLC10A1) mRNA
188	13287		2.06	1.0E-108	AA341934.1	EST_HUMAN	Homo sapiens solute carrier family 10 (sodium/bile acid cotransporter family), member 1 (SLC10A1) mRNA
881	14032	26975	2.26	1.0E-108	BE266042.1	EST_HUMAN	ze45e01.s1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:361944 3' similar to contains THR.b1 T-HR repetitive element
1292	14325	27270	3.1	1.0E-108	Y18000.1	NT	EST47363 Fetal muscle Homo sapiens cDNA 5' end
2352	15360	28362	3.13	1.0E-108	AI686040.1	EST_HUMAN	601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532348 5'
2352	15360	28363	3.13	1.0E-108	AI686040.1	EST_HUMAN	Homo sapiens NF2 gene
							h81e10.x1 NCL CGAP_P128 Homo sapiens cDNA clone IMAGE:2248938 3' similar to gb:M14219 BONE
							PROTEOGLYCAN II PRECURSOR (HUMAN);
							h81e10.x1 NCL CGAP_P128 Homo sapiens cDNA clone IMAGE:2248938 3' similar to gb:M14219 BONE
							PROTEOGLYCAN II PRECURSOR (HUMAN);
2452	15456	28453	13.84	1.0E-108	BE206594.1	EST_HUMAN	bb25b10.x1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:2863889 3' similar to gb:X53777 60S
3001	16053	28957	0.74	1.0E-108	6003979	NT	RIBOSOMAL PROTEIN L23 (HUMAN); gb:J05277 Mouse hexokinase mRNA, complete cds (MOUSE);
3398	16440	28344	0.75	1.0E-108	AF032897.1	NT	Homo sapiens Kruppel-like factor 8 (KLF8), mRNA
3398	16440	28345	0.76	1.0E-108	AF032897.1	NT	Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds
3893	16912	29791	1.16	1.0E-108	6453955	NT	Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds
4254	17270	30138	1.19	1.0E-108	AW664438.1	EST_HUMAN	Homo sapiens pericentriolar material 1 (PCM1) mRNA
4919	17618	30783	2.78	1.0E-108	7661979	NT	h12a11.x1 NCL CGAP_GU1 Homo sapiens cDNA clone IMAGE:2872060 3' similar to SW:3BP1_MOUSE
5028	18025	30894	0.74	1.0E-108	AW604799.1	EST_HUMAN	P55194 SH-3-BINDING PROTEIN 3BP-1.1
5064	18061	30912	2.22	1.0E-108	AJ006005.1	NT	Homo sapiens KIAA0187 gene product (KIAA0187), mRNA
							UI-HF-BND-ah-e-04-0-JL.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3080168 5'
							Homo sapiens PSN1 gene, alternative transcript

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5331	18315	31163	1.19	1.0E-108	8400716	NT	Homo sapiens nebulin (NEB), mRNA
5364	18346	31189	0.98	1.0E-108	H17233.1	EST_HUMAN	Yn42504.r1 Scars Infant Brain (NIIB) Homo sapiens cDNA clone IMAGE:50868 5'
5667	18741	31650	1.71	1.0E-108	AW384094.1	EST_HUMAN	RC0-H10372-241189-031-d03 HT0372 Homo sapiens cDNA
5717	18760	31722	2.43	1.0E-108	BE869016.1	EST_HUMAN	601444922F1 NIH_MGC_63 Homo sapiens cDNA clone IMAGE:3848980 5'
5717	18790	31723	2.49	1.0E-108	BE869016.1	EST_HUMAN	601444922F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3848980 5'
6161	19210		0.85	1.0E-108	AF012823.1	NT	Homo sapiens familial mental retardation protein 2 (FMR2) gene, exon 20
6234	19288	32447	0.74	1.0E-108	BF334851.1	EST_HUMAN	PM4-CT0403-240700-001-c10 CT0403 Homo sapiens cDNA
6379	19428	32595	5.92	1.0E-108	AF264717.1	NT	Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP2 mRNA, complete cds
6379	19428	32596	5.92	1.0E-108	AF264717.1	NT	Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP2 mRNA, complete cds
6513	19557	32738	1.27	1.0E-108	AJ133269.1	NT	Homo sapiens caveolin-1/2 locus, Contig1, D7S822, genes CAV2 (exons 1, 2a, and 2b), CAV1 (exons 1 and 2)
6618	19288	32447	1.08	1.0E-108	BF334851.1	EST_HUMAN	PM4-CT0403-240700-001-c10 CT0403 Homo sapiens cDNA
6906	19936	33163	0.74	1.0E-108	AF016706.1	NT	Homo sapiens EG-AP ubiquitin-protein ligase (UBE3A) gene, exon 4
6808	19936	33154	0.74	1.0E-108	AF016706.1	NT	Homo sapiens EG-AP ubiquitin-protein ligase (UBE3A) gene, exon 4
7519	20459	33744	4.97	1.0E-108	11431857	NT	Homo sapiens G protein-coupled receptor, family C, group 5, member B (GPRC6B), mRNA
7843	20770	34073	4.09	1.0E-108	4758333	NT	Homo sapiens delta-6 fatty acid desaturase (FADS6) mRNA
7897	20823	34128	1.36	1.0E-108	BE252807.1	EST_HUMAN	601113471F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3354084 5'
7928	20850	34156	1.05	1.0E-108	BF528912.1	EST_HUMAN	602043384F1 NCI_CGAP_Bri07 Homo sapiens cDNA clone IMAGE:4181037 5'
7928	20850	34157	1.05	1.0E-108	BF528912.1	EST_HUMAN	602043384F1 NCI_CGAP_Bri07 Homo sapiens cDNA clone IMAGE:4181037 5'
8382	21286	34617	0.48	1.0E-108	11422155	NT	Homo sapiens cystic fibrosis transmembrane conductance regulator, ATP-binding cassette (sub-family C, member 7) (CFTR), mRNA
8641	21572		1.74	1.0E-108	AF083500.1	NT	Homo sapiens connective tissue growth factor-like protein precursor, mRNA, complete cds
8692	21623	34965	0.66	1.0E-108	AW408694.1	EST_HUMAN	U1-HF-BM0-ads-e-12-0-U1.r1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3082878 5'
8692	21623	34966	0.66	1.0E-108	AW408694.1	EST_HUMAN	U1-HF-BM0-ads-e-12-0-U1.r1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3082878 5'
9600	22526	36891	0.68	1.0E-108	AF203977.1	NT	Homo sapiens ETS-family transcription factor EHF (EHF) mRNA, complete cds
11111	21217	34553	1.94	1.0E-108	BE535227.1	EST_HUMAN	601058766F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3445381 5'
11267	19434	31356	2.13	1.0E-108	Y12490.1	NT	Homo sapiens mRNA for Cggl-associated microtubule-binding protein (GMAP-210)
11503	24413	37888	1.96	1.0E-108	AF223391.1	NT	Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced
11718	24620	38098	4.03	1.0E-108	AW066185.1	EST_HUMAN	EST378258 IMAGE resequences, MAGI Homo sapiens cDNA
11767	24668	38154	1.47	1.0E-108	AV708780.1	EST_HUMAN	AV708780 ADC Homo sapiens cDNA clone ADCAE03 5'
11767	24668	38155	1.47	1.0E-108	AV708780.1	EST_HUMAN	AV708780 ADC Homo sapiens cDNA clone ADCAE03 5'

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11809	24730		1.62	1.0E-108	11441465	NT	Homo sapiens G protein-coupled receptor 48 (GPR48), mRNA
11860	24750	36243	2.17	1.0E-108	D63539.1	NT	Homo sapiens COL4A6 gene for $\alpha 6$ (IV) collagen, exon 23
12550	25266	31837	4.23	1.0E-108	AK024447.1	NT	Homo sapiens mRNA for FLJ00037 protein, partial cds
12010	25493		7.79	1.0E-108	BF346356.1	EST_HUMAN	002018571F1 NCI_CGAP_Brn07 Homo sapiens cDNA clone IMAGE:4154287 5'
46	13161	26062	0.89	1.0E-109	AW803116.1	EST_HUMAN	IL2JM0077-260400-079-D08 UM0077 Homo sapiens cDNA
68	13183	26081	1.01	1.0E-109	D86974.1	NT	Human mRNA for KIAA0220 gene, partial cds
234	13332	26249	1.47	1.0E-109	11422486	NT	Homo sapiens hypothetical protein FLJ11316 (FLJ11316), mRNA
246	13342	26264	2.7	1.0E-109	11438391	NT	Homo sapiens reticulocalbin 1, EF-hand calcium binding domain (RCN1), mRNA
489	13560	26475	3.8	1.0E-109	4507712	NT	Homo sapiens tetratricopeptide repeat domain 2 (TTC2), mRNA
619	13684	26587	14.29	1.0E-109	AB023216.1	NT	Homo sapiens mRNA for KIAA0999 protein, partial cds
619	13684	26588	14.29	1.0E-109	AB023216.1	NT	Homo sapiens mRNA for KIAA0999 protein, partial cds
1230	14267	27210	8.63	1.0E-109	M28699.1	NT	Homo sapiens nuclear phosphoprotein B23 (NPM1), mRNA, complete cds
1231	14267	27210	5.33	1.0E-109	M28699.1	NT	Homo sapiens nuclear phosphoprotein B23 (NPM1), mRNA, complete cds
1697	14918	27897	5.83	1.0E-109	O13643.2	NT	Homo sapiens mRNA for KIAA0018 protein, partial cds
2256	15266	28274	5.22	1.0E-109	AL163284.2	NT	Homo sapiens chromosome 21 segment HS21C084
2266	15276	28282	1.81	1.0E-109	Y17123.1	NT	Homo sapiens SNF5/INI1 gene, exon 6
2668	15664	28664	3.58	1.0E-109	AI023228.1	EST_HUMAN	TR:002197 002197 CIRCULATING CATHODIC ANTIGEN. ; ow856d01.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1654536 3' similar to
2668	15684	28665	3.56	1.0E-109	AI023228.1	EST_HUMAN	TR:002197 002197 CIRCULATING CATHODIC ANTIGEN. ; ow856d01.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1654536 3' similar to
2660	15665	28668	3.18	1.0E-109	4504206	NT	Homo sapiens guanylate cyclase activator 1A (retina) (GUCA1A), mRNA
3106	16157	29052	1.1	1.0E-109	N85190.1	EST_HUMAN	J2816F Human fetal heart 1, Lambda ZAP Express Homo sapiens cDNA clone J2816 5' similar to ZINC FINGER PROTEIN ZNF43
3447	16488	29395	1.32	1.0E-109	AW893192.1	EST_HUMAN	GM3-NN0009-190400-150-f10 NN0009 Homo sapiens cDNA
3447	16488	29396	1.32	1.0E-109	AW893192.1	EST_HUMAN	GM3-NN0009-190400-150-f10 NN0009 Homo sapiens cDNA
3578	16615	29518	0.9	1.0E-109	AF240698.1	NT	Homo sapiens retinol dehydrogenase homolog isoform-1 (RDH), mRNA, complete cds
3619	16655	29555	1.17	1.0E-109	M37928.1	NT	Homo sapiens adenosine monophosphate deaminase 1 (AMPD1) gene, exons 8-10
3619	16655	29556	1.17	1.0E-109	M37928.1	NT	Homo sapiens adenosine monophosphate deaminase 1 (AMPD1) gene, exons 8-10
4244	17260	30129	4.36	1.0E-109	AI655417.1	EST_HUMAN	tsa8a06.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2239330 3' similar to WP:53A2.8 OE16100 ;
4510	17520	30388	2.61	1.0E-109	4504206	NT	Homo sapiens guanylate cyclase activator 1A (retina) (GUCA1A), mRNA
4710	17715	30577	1.41	1.0E-109	7662083	NT	Homo sapiens KIAA0377 gene product (KIAA0377), mRNA
5031	18028	30886	0.99	1.0E-109	RI6400.1	EST_HUMAN	y648a06.r1 Soares Infant brain 1NIB Homo sapiens cDNA clone IMAGE:53057 5'
5427	19509	31289	0.84	1.0E-109	AU137282.1	EST_HUMAN	AU137282 PLACE1 Homo sapiens cDNA clone PLACE1006159 5'

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5441	18523	31248	1.05	1.0E-109	BF673718.1	EST_HUMAN	602136446F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4272822 5'
5486	18575	31421	2.65	1.0E-109	5174622	NT	Homo sapiens placental protein 11 (serine proteinase) (P11) mRNA
5801	18873		1.68	1.0E-109	BE179358.1	EST_HUMAN	RC1-HT0615-200400-022-004 HT0615 Homo sapiens cDNA
6152	25641	32349	1	1.0E-109	BF378688.1	EST_HUMAN	GM1-JT0038-060900-399-007 UT0038 Homo sapiens cDNA
6288	19873		1.41	1.0E-109	BE179358.1	EST_HUMAN	RC1-HT0615-200400-022-004 HT0615 Homo sapiens cDNA
6608	19849	32832	0.73	1.0E-109	M23442.1	NT	Human Interleukin 4 (IL-4) gene; complete cds
6608	19849	32833	0.73	1.0E-109	M23442.1	NT	Human Interleukin 4 (IL-4) gene; complete cds
6873	19804	33119	0.61	1.0E-109	AI221385.1	EST_HUMAN	q986108.x1 Soares_NFL_T_GEC_S1 Homo sapiens cDNA clone IMAGE:1842111 3'
7074	20260	33535	0.4	1.0E-109	11024711	NT	Homo sapiens myosin heavy polypeptide 4, skeletal muscle (MYH4), mRNA
7074	20280	33536	0.4	1.0E-109	11024711	NT	Homo sapiens myosin heavy polypeptide 4, skeletal muscle (MYH4), mRNA
7289	18458	31328	0.41	1.0E-109	BE074888.1	EST_HUMAN	RC5-BT0580-170300-021-F08 BT0580 Homo sapiens cDNA
7610	20545	33837	0.89	1.0E-109	AB046811.1	NT	Homo sapiens mRNA for KIAA1591 protein, partial cds
7671	20798	34101	0.44	1.0E-109	AE000287.1	NT	Escherichia coli K-12 MG1655 section 187 of 400 of the complete genome
7998	20916	34232	3.86	1.0E-109	11432874	NT	Homo sapiens AT-binding transcription factor 1 (ATBF1), mRNA
8000	20918	34234	4.87	1.0E-109	BF182707.1	EST_HUMAN	601809495F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040279 5'
8000	20918	34235	4.87	1.0E-109	BF182707.1	EST_HUMAN	601809495F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040279 5'
8247	21152	34487	0.6	1.0E-109	BE263287.1	EST_HUMAN	601145017F2 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3160229 5'
8761	21681	35024	1.41	1.0E-109	AL049784.1	NT	Novel human gene mapping to chromosome 13
8862	21792	35144	1.13	1.0E-109	AW749130.1	EST_HUMAN	PMO-BT0340-091299-002-e05 BT0340 Homo sapiens cDNA
9215	22143		2.76	1.0E-109	AA077498.1	EST_HUMAN	7B18H01 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B18H01
9293	22221	35578	7.11	1.0E-109	BE787540.1	EST_HUMAN	601479417F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3882124 5'
9293	22221	35579	7.11	1.0E-109	BE787540.1	EST_HUMAN	601479417F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3882124 5'
9780	22704	36088	1.32	1.0E-109	H84860.1	EST_HUMAN	ys90g08.11 Soares retina N2b5-HR Homo sapiens cDNA clone IMAGE:222110 5' similar to SP-A63481
9888	22803	36190	0.8	1.0E-109	BE397058.1	EST_HUMAN	A53491 BUMETANIDE-SENSITIVE NA-K-C1 COTRANSPORTER - SPINY
9888	22803	36191	0.8	1.0E-109	BE397058.1	EST_HUMAN	601289760F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3820030 5'
10017	22917	36306	1.13	1.0E-109	F06804.1	EST_HUMAN	601289760F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3820030 5'
11213	24139	37690	2.24	1.0E-109	BE540909.1	EST_HUMAN	HSC1EC121 normalized infant brain cDNA Homo sapiens cDNA clone c-1ec12
11213	24139	37591	2.24	1.0E-109	BE540909.1	EST_HUMAN	601063030F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3449599 5'
11247	24171	37618	15	1.0E-109	BF694831.1	EST_HUMAN	601063030F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3449599 5'
11406	24322	37771	1.43	1.0E-109	7662279	NT	602080724F2 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4246341 5'
11406	24322	37772	1.43	1.0E-109	7662279	NT	Homo sapiens KIAA0744 gene product; histone deacetylase 7 (KIAA0744), mRNA
11565	24474	37841	1.67	1.0E-109	AU121370.1	EST_HUMAN	Homo sapiens KIAA0744 gene product; histone deacetylase 7 (KIAA0744), mRNA
11808	24729	38221	3.03	1.0E-109	4502838	NT	AU121370 HEMBB1 Homo sapiens cDNA clone HEMBB1002690 5'
							Homo sapiens Chediak-Higashi syndrome 1 (CHS1) mRNA

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11843	24694	38184	4.7	1.0E-109	W18510.1	EST_HUMAN	z08b12.r1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:301439 5' similar to PIR:S43969 S43969 p54-beta stress-activated protein kinases - rat;
12110	24951	38454	1.48	1.0E-109	11418818	NT	Homo sapiens aldehyde-methylated (Osteopontin) homolog 1 (SIM1), mRNA
12459	15276	28282	2.1	1.0E-109	Y1123.1	NT	Homo sapiens SNF5/INI1 gene, exon 8
12666	15276	28282	1.81	1.0E-109	Y1123.1	NT	Homo sapiens SNF5/INI1 gene, exon 6
12774	25403	31811	8.38	1.0E-106	AB011388.1	NT	Homo sapiens gene for AF-6, complete cds
3	13119	26005	1	1.0E-110	7549804	NT	Homo sapiens deloninase, lodothyronine, type II (DIO2), transcript variant 2, mRNA
39	13155	26045	4.44	1.0E-110	5803073	NT	Homo sapiens leucine-zipper-like transcriptional regulator, 1 (LZTR1), mRNA
39	13155	26046	4.44	1.0E-110	5803073	NT	Homo sapiens leucine-zipper-like transcriptional regulator, 1 (LZTR1), mRNA
113	13119	26005	0.73	1.0E-110	7549804	NT	Homo sapiens deloninase, lodothyronine, type II (DIO2), transcript variant 2, mRNA
314	13408	26324	1.07	1.0E-110	D87291.1	NT	Human mRNA for inward rectifier potassium channel, complete cds
550	13618	26527	0.9	1.0E-110	U84550.1	NT	Human dystrobrevin (DTN) gene, exon 20
1208	14247	27188	0.98	1.0E-110	5031620	NT	Homo sapiens calcitonin receptor-like (CALCRL) mRNA
1305	14338	27288	0.9	1.0E-110	AB032253.1	NT	Homo sapiens BAZ1B mRNA for bromodomain adjacent to zinc finger domain 1B, complete cds
1936	14967	27835	1.14	1.0E-110	BE379477.1	EST_HUMAN	601237545F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3809683 5'
2071	15088		1.51	1.0E-110	BF508898.1	EST_HUMAN	UI-H-B14-005-b-05-0-UI-61 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3085784 3'
2886	15940		0.84	1.0E-110	4503098	NT	Homo sapiens chondroin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA
3077	14338	27288	0.87	1.0E-110	AB032253.1	NT	Homo sapiens BAZ1B mRNA for bromodomain adjacent to zinc finger domain 1B, complete cds
3136	16186		2.19	1.0E-110	U78027.1	NT	Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds
3238	16286	29188	1.91	1.0E-110	11438041	NT	Homo sapiens pregnancy-zone protein (PZP), mRNA
3238	16286	29189	1.91	1.0E-110	11438041	NT	Homo sapiens pregnancy-zone protein (PZP), mRNA
4138	17159	30035	0.95	1.0E-110	BE018558.1	EST_HUMAN	b582a05.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3048848 5' similar to TR:O60312 O60312 KIAA0566 PROTEIN;
4747	17752	30810	2	1.0E-110	AI017213.1	EST_HUMAN	032b10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1627883 3' similar to SW:NI121_RAT_P62591 NUCLEAR ENVELOPE PORE MEMBRANE PROTEIN POM 121;
4784	17769	30834	2.95	1.0E-110	AU117812.1	EST_HUMAN	AU117812 HEMBA1 Homo sapiens cDNA clone HEMBA1002241 5'
5094	18091		2.34	1.0E-110	7662441	NT	Homo sapiens KIAA1002 protein (KIAA1002), mRNA
5333	18317	31165	3.47	1.0E-110	M36430.1	NT	Human transducin beta-1 subunit mRNA, 3' end
5401	18363	31223	2.55	1.0E-110	M31651.1	NT	Homo sapiens sex hormone-binding globulin (SHBG) gene, complete cds
5477	18558	31400	2.2	1.0E-110	BE29406.1	EST_HUMAN	601118710F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3028538 5'
5927	18694	32113	0.72	1.0E-110	BE621069.1	EST_HUMAN	601493677F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3895795 5'
5947	18014	32132	6.27	1.0E-110	11418323	NT	Homo sapiens hypothetical protein FLJ10300 (FLJ10300), mRNA
5947	18014	32134	6.27	1.0E-110	11418323	NT	Homo sapiens hypothetical protein FLJ10300 (FLJ10300), mRNA



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Table 4  
Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
7017	25681	33278	4.3	1.0E-110	M55112.1	NT	Human cystic fibrosis transmembrane conductance regulator (CFTR) gene, exon 7
7385	20378	33847	0.56	1.0E-110	BE251496.1	EST_HUMAN	601109388F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350277 5'
7461	20401	33675	0.88	1.0E-110	U08888.1	NT	Human GS2 gene, exon 2
7461	20401	33676	0.88	1.0E-110	U08888.1	NT	Human GS2 gene, exon 2
7708	20640	33838	0.84	1.0E-110	AJ660289.1	EST_HUMAN	hnt2808.x1 NCJ_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2167407 3' similar to SW:ETV1_HUMAN
7826	20755	34058	17.77	1.0E-110	AV714276.1	EST_HUMAN	P50549 ETS TRANSLOCATION VARIANT 1:
7826	20755	34059	17.77	1.0E-110	AV714276.1	EST_HUMAN	AV714276 DCB Homo sapiens cDNA clone DCBCGE01 5'
7859	20786	34089	2.92	1.0E-110	AB020676.1	NT	AV714276 DCB Homo sapiens cDNA clone DCBCGE01 5'
8003	20821	34237	0.85	1.0E-110	AU137923.1	EST_HUMAN	Homo sapiens mRNA for KIAA0389 protein, partial cds
8411	21314	34846	1.01	1.0E-110	9961261	NT	AU137923 PLACE1 Homo sapiens cDNA clone PLACE1007511 5'
9874	22789	36180	0.79	1.0E-110	BE302594.1	EST_HUMAN	Homo sapiens ATP-binding cassette, sub-family B (MDR/TAP), member 4 (ABCB4), transcript variant C, mRNA
10106	22987	36392	2.85	1.0E-110	AW893394.1	EST_HUMAN	ba8801.y1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2905861 5' similar to TR:O77258 O77258
10812	23698	37125	3.75	1.0E-110	11432732	NT	EQ-114D9.2 PROTEIN.;
11188	24114	37562	3.42	1.0E-110	Y12337.1	NT	QV2-LT0053-020400-119-e04 LT0053 Homo sapiens cDNA
11404	24320	37768	4.24	1.0E-110	BE734357.1	EST_HUMAN	Homo sapiens galectinase 2 (GALK2), mRNA
11404	24320	37769	4.24	1.0E-110	BE734357.1	EST_HUMAN	H. sapiens mRNA for myotonic dystrophy protein kinase like protein
11876	23976	37414	2.24	1.0E-110	AA446529.1	EST_HUMAN	601565604F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3840433 5'
12287	25107		2.45	1.0E-110	BE897218.1	EST_HUMAN	601565604F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3840433 5'
12411	25180		6.47	1.0E-110	AW062258.1	EST_HUMAN	601565604F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3840433 5'
12631	25313		2.74	1.0E-110	AB011399.1	NT	z607g02.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:761298 5' similar to TR:G1145816
12762	25893		4.57	1.0E-110	BF364546.1	EST_HUMAN	G1145816 FKBP34:
185	13294		12.38	1.0E-111	U43701.1	NT	601439784F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924548 5'
209	13308	26225	1.02	1.0E-111	4758807	NT	IL0-BT0163-040889-094-g10 BT0163 Homo sapiens cDNA
758	13815		1.78	1.0E-111	BF036327.1	EST_HUMAN	Homo sapiens gene for AF-8, complete cds
707	13824	26754	3.57	1.0E-111	6893092	NT	PM3-NN1082-140900-008-f12 NN1082 Homo sapiens cDNA
955	14005	26951	2.71	1.0E-111	M23142.1	NT	Human ribosomal protein L23a mRNA, complete cds
4437	17448	30308	5.56	1.0E-111	K02268.1	NT	Homo sapiens ras GTPase activating protein-like (NGAP) mRNA
5405	18386	31226	1.18	1.0E-111	6598319	NT	601438531F1 NIH_MGC_86 Homo sapiens cDNA clone IMAGE:3882088 5'
5694	18738	31646	0.7	1.0E-111	AA161017.1	EST_HUMAN	Homo sapiens cal eye syndrome critical region gene 1 (CECR1), mRNA
							Human cardiac alpha-myosin heavy chain (MYH6) gene, exon 32 to 34
							Human enkephalin B (enkeB) gene, exon 4 and 3' flank and complete cds
							Homo sapiens aldehyde oxidase 1 (AOX1), mRNA
							247607.r1 Soares_pregnant_uterus_NHPU Homo sapiens cDNA clone IMAGE:605045 5' similar to gb:M23575 PREGNANCY-SPECIFIC BETA-1 GLYCOPROTEIN C PRECURSOR (HUMAN);

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5664	18738	31047	0.7	1.0E-111	AA151017.1	EST_HUMAN	247507.r1 Soares_pregnant_uterus_NHPU Homo sapiens cDNA clone IMAGE:505045 5' similar to gb:M23575 PREGNANCY-SPECIFIC BETA-1 GLYCOPROTEIN C PRECURSOR (HUMAN);
5827	18998	32012	0.73	1.0E-111	BE867809.1	EST_HUMAN	601443690F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3847655 5'
5950	19017	32137	0.44	1.0E-111	U19969.1	NT	Human two-headed zinc finger protein ZEB mRNA, partial cds
6265	18316	32481	1.77	1.0E-111	A1344678.1	EST_HUMAN	qp09g12.x1 NCI_CGAP_K1d8 Homo sapiens cDNA clone IMAGE:1817574 3' similar to gb:M298893 RAS-RELATED PROTEIN RAL-A (HUMAN);
6976	20003	33235	1.07	1.0E-111	AL040782.1	EST_HUMAN	DKFZp434C1815_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434C1815 5'
7117	20321	33566	1.18	1.0E-111	AW294648.1	EST_HUMAN	U1-HBW6-ell-4-03-0-UI s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:2728525 3'
7563	20500	33788	0.6	1.0E-111	AW693165.1	EST_HUMAN	RC2-BN0033-160200-013-b05 BN0033 Homo sapiens cDNA
7851	20778	34079	2.73	1.0E-111	BF368228.1	EST_HUMAN	IL2-NT0101-280700-114-E03 NT0101 Homo sapiens cDNA
7953	20875	34186	0.84	1.0E-111	6661253	NT	Homo sapiens ATP-binding cassette, sub-family B (MDR/TAP), member 4 (ABCB4), transcript variant A, mRNA
7981	20883	34194	12.98	1.0E-111	A1761228.1	EST_HUMAN	wf68d01.x1 NCI_CGAP_K1d12 Homo sapiens cDNA clone IMAGE:2398465 3' similar to gb:J04813
8059	20972	34288	0.8	1.0E-111	U80017.1	NT	CYTCHROME P450 IIA5 (HLIM); Homo sapiens basic transcription factor 2 p44 (btf2p44) gene, partial cds, neuronal apoptosis inhibitory protein (napi) and survival motor neuron protein (smn) genes, complete cds
8260	21165	34500	0.49	1.0E-111	AA133914.1	EST_HUMAN	zn62c12.r1 Strategene muscle 637209 Homo sapiens cDNA clone IMAGE:592774 5' similar to gb:X03740 MYOSIN HEAVY CHAIN, SKELETAL MUSCLE (HUMAN);
8073	21604	34945	0.9	1.0E-111	AA278868.1	EST_HUMAN	z879g03.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:703732 5' similar to TR:G1268410
8673	21604	34946	0.9	1.0E-111	AA278868.1	EST_HUMAN	G1256410 11-ZINC-FINGER TRANSCRIPTION FACTOR. ;
8817	21747	35095	3.93	1.0E-111	U69533.1	NT	G1256410 11-ZINC-FINGER TRANSCRIPTION FACTOR. ;
9237	22165	35518	0.89	1.0E-111	11420518	NT	Human beta4-integrin (ITGB4) gene, exon 13
9335	22233	35827	0.84	1.0E-111	AK024453.1	NT	Homo sapiens nuclear factor of activated T-cells, cytoplasmic 2 (NFATC2), mRNA
9366	22294		0.53	1.0E-111	AF177987.1	NT	Homo sapiens mRNA for FLJ00045 protein, partial cds
9367	22295		12.82	1.0E-111	BF214902.1	EST_HUMAN	Homo sapiens cone sodium-calcium potassium exchanger splice variant (NCKX) mRNA, complete cds
9441	22369	36731	18.48	1.0E-111	X17033.1	NT	601847132F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4078303 5'
9441	22369	36732	16.48	1.0E-111	X17033.1	NT	Human mRNA for integrin alpha-2 subunit
9633	22559	35928	3.42	1.0E-111	AF091395.1	NT	Human mRNA for integrin alpha-2 subunit
9857	22772	36159	0.89	1.0E-111	BF333210.1	EST_HUMAN	Homo sapiens Tio isoform mRNA, complete cds
10649	23535	36988	2.74	1.0E-111	AA504160.1	EST_HUMAN	QV2-BT0817-270800-398-e06 BT0817 Homo sapiens cDNA aa58g02.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:825170 3' similar to gb:L09235 VACUOLAR ATP SYNTHASE CATALYTIC SUBUNIT A, UBIQUITOUS (HUMAN);

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
10676	23662		1.44	1.0E-111	D10083.1	NT	Homo sapiens RGH1 gene, retrovirus-like element
10765	23651	37084	5.85	1.0E-111	AA131248.1	EST_HUMAN	z13161.r1 Soares_pregnant_uterus_Nb1PU Homo sapiens cDNA clone IMAGE:503545 5'
11480	24393	37843	7.88	1.0E-111	U68159.1	NT	Human thrombospondin receptor (MPL) gene, exons 1,2,3,4,5 and 8
12254	25074	38598	5.81	1.0E-111	11417801	NT	Homo sapiens meningioma (disrupted in balanced translocation) 1 (MN1), mRNA
12758	25362	31805	1.83	1.0E-111	AV708482.1	EST_HUMAN	AY708482 ADC Homo sapiens cDNA clone ADCAO808 5'
12861	25714	31664	4.06	1.0E-111	W22562.1	EST_HUMAN	72C9 Human retina cDNA Tsp5091-cleaved sublibrary Homo sapiens cDNA not directional
631	13692	26596	4.74	1.0E-112	4501854	NT	Homo sapiens acetyl-Coenzyme A carboxylase beta (ACACB), mRNA
633	13694	26598	5.57	1.0E-112	U29103.1	NT	Human steroidogenic acute regulatory protein (STAR) gene, exon 5
633	13694	26599	5.57	1.0E-112	U29103.1	NT	Human steroidogenic acute regulatory protein (STAR) gene, exon 5
655	13716	26826	1.23	1.0E-112	BF509039.1	EST_HUMAN	UI-H-B14-eot-g-04-0-UI.e1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3086023 3'
655	13716	26827	1.23	1.0E-112	BF509039.1	EST_HUMAN	UI-H-B14-eot-g-04-0-UI.e1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3086023 3'
1028	14078	27018	11.16	1.0E-112	AF167623.1	NT	Homo sapiens HTRA serine protease (PRSS1) gene, complete cds
1089	14133	27059	1	1.0E-112	P52742	SWISSPROT	ZINC FINGER PROTEIN 135
1709	14737	27704	3.74	1.0E-112	7682125	NT	Homo sapiens KIAA0440 protein (KIAA0440), mRNA
1709	14737	27705	3.74	1.0E-112	7682125	NT	Homo sapiens KIAA0440 protein (KIAA0440), mRNA
1842	14865	27846	4.83	1.0E-112	AF248540.1	NT	Homo sapiens Intersectin 2 (SH3D1B) mRNA, complete cds
2533	15534	28534	1.86	1.0E-112	BE866859.1	EST_HUMAN	601442674F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3848858 5'
3127	18178		0.68	1.0E-112	4504116	NT	Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA
3415	18457	28383	0.71	1.0E-112	AI826511.1	EST_HUMAN	SEMNOCGELIN 1 PROTEIN PRECURSOR (HUMAN);
3653	18981	28865	0.68	1.0E-112	BE076073.1	EST_HUMAN	MR2.BT0590-090300-113-f09 BT0590 Homo sapiens cDNA
4714	17719	30591	1	1.0E-112	4504116	NT	Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA
4865	17866	30729	8.93	1.0E-112	AB037832.1	NT	Homo sapiens mRNA for KIAA1411 protein, partial cds
4865	17866	30730	8.93	1.0E-112	AB037832.1	NT	Homo sapiens mRNA for KIAA1411 protein, partial cds
5387	18389	31207	1.13	1.0E-112	AB020710.1	NT	Homo sapiens mRNA for KIAA0903 protein, partial cds
5387	18389	31208	1.13	1.0E-112	AB020710.1	NT	Homo sapiens mRNA for KIAA0903 protein, partial cds
5864	18935	32054	40.67	1.0E-112	AF4046.1	EST_HUMAN	y35d07.r1 Soares melanocyte 2NbhM Homo sapiens cDNA clone IMAGE:273229 5'
6313	19363	32533	1.07	1.0E-112	AF149773.1	NT	Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3
6385	19434	32801	0.76	1.0E-112	AW502437.1	EST_HUMAN	UI-HF-BR0p-aj-g-06-0-UI.r1 NIH_MGC_52 Homo sapiens cDNA clone IMAGE:3075658 5'
6385	19434	32602	0.76	1.0E-112	AW502437.1	EST_HUMAN	UI-HF-BR0p-aj-g-06-0-UI.r1 NIH_MGC_52 Homo sapiens cDNA clone IMAGE:3075658 5'
6488	19542	32718	2.18	1.0E-112	BE741666.1	EST_HUMAN	601594717F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3948557 5'
6732	19767	32975	0.51	1.0E-112	BE72816.1	EST_HUMAN	602152649F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:4293420 5'
6927	19956	33176	0.8	1.0E-112	BE273103.1	EST_HUMAN	601142755F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3506508 5'
6927	19956	33177	0.8	1.0E-112	BE273103.1	EST_HUMAN	601142755F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3506508 5'

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
7157	20255	33519	1.24	1.0E-112	BF674235.1	EST_HUMAN	602131405F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4270821 5'
7516	20455	33741	0.44	1.0E-112	AL043298.1	EST_HUMAN	DKFZp434M0523_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434M0523 5'
7722	20654	33950	1.71	1.0E-112	11416777	NT	Homo sapiens solute carrier family 6 (neurotransmitter transporter, L-proline), member 7 (SLC6A7), mRNA
7722	20654	33951	1.71	1.0E-112	11416777	NT	Homo sapiens solute carrier family 6 (neurotransmitter transporter, L-proline), member 7 (SLC6A7), mRNA
8771	21701	35047	3.62	1.0E-112	AU118051.1	EST_HUMAN	AU118051 HEMBA1 Homo sapiens cDNA clone HEMBA1002773 5'
9512	22439	35803	2.51	1.0E-112	BE667635.1	EST_HUMAN	601443151F1 NIH_MGC_85 Homo sapiens cDNA clone IMAGE:3847285 5'
9512	22439	35804	2.51	1.0E-112	BE667635.1	EST_HUMAN	601443151F1 NIH_MGC_85 Homo sapiens cDNA clone IMAGE:3847285 5'
10406	23294	36714	2.16	1.0E-112	BF111413.1	EST_HUMAN	780p07.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3623020 3' similar to TR:Q9VW35 Q9VW35 CG8743 PROTEIN ;
11217	24143	37595	2.88	1.0E-112	AW863327.1	EST_HUMAN	MR3-SN009-100400-108-b12 SN009 Homo sapiens cDNA
11398	24304	37751	2.87	1.0E-112	AJ249900.1	NT	Homo sapiens mRNA for secreted modular calcium-binding protein (smoc1 gene)
11541	24451	37914	1.94	1.0E-112	BE280479.1	EST_HUMAN	601155323F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3138989 5'
11629	24535	38006	4.32	1.0E-112	AW377670.1	EST_HUMAN	PVQ-CT0237-141099-001-h02 CT0237 Homo sapiens cDNA
768	13923	28752	3.52	1.0E-113	AJ365586.1	EST_HUMAN	ac95f01.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1953625 3'
768	13923	26753	3.52	1.0E-113	AJ365586.1	EST_HUMAN	ac95f01.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1953625 3'
970	14021	26985	4.95	1.0E-113	M11985.1	NT	Human X-linked phosphoglycerate kinase gene, exon 8
1564	14595	27555	3.71	1.0E-113	AJ365586.1	EST_HUMAN	ac95f01.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1953625 3'
1954	15854	27956	1.14	1.0E-113	AF240775.1	NT	Homo sapiens eIF4E-transporter mRNA, complete cds
2107	15121	28124	1.22	1.0E-113	BF515218.1	EST_HUMAN	U1-H-BW1-enl-f-03-q-U1.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3082876 3'
3175	16225	29119	1.02	1.0E-113	AJ223948.1	NT	Homo sapiens mRNA for putative RNA helicase, 3' end
5425	25748	31876	3.46	1.0E-113	BE760858.1	EST_HUMAN	601469465F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3872536 5'
5681	18755	31876	5.8	1.0E-113	AU127214.1	EST_HUMAN	AU127214 NT2RP2 Homo sapiens cDNA clone NT2RP2000807 5'
6029	19031	32217	0.47	1.0E-113	BE789172.1	EST_HUMAN	601476296F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3879408 5'
6029	19031	32218	0.47	1.0E-113	BE789172.1	EST_HUMAN	601476296F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3879408 5'
6148	19205	32343	3.62	1.0E-113	AU140281.1	EST_HUMAN	AU140281 PLACE2 Homo sapiens cDNA clone PLACE200274 5'
6176	18233	32380	2.48	1.0E-113	AF016535.1	NT	Homo sapiens P-glycoprotein (mdr1) mRNA, complete cds
6305	19355	32527	2.38	1.0E-113	11529737	NT	Homo sapiens UDP-N-acetyl-alpha-D-galactosaminopolypeptide N-acetylglactosaminyltransferase 8 (GalNAc-T8) (GALNT8), mRNA
6397	16445	32615	2.44	1.0E-113	9961249	NT	Homo sapiens ATP-binding cassette, sub-family B (MDR/TAP), member 4 (ABCB4), transcript variant B, mRNA
6397	16445	32616	2.44	1.0E-113	9961249	NT	Homo sapiens ATP-binding cassette, sub-family B (MDR/TAP), member 4 (ABCB4), transcript variant B, mRNA

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Table 4  
Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6571	19612	32797	0.76	1.0E-113	6006002	NT	Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2A (GRIN2A) mRNA
6571	19612	32798	0.76	1.0E-113	6006002	NT	Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2A (GRIN2A) mRNA
7705	20637	33934	0.95	1.0E-113	BE262161.1	EST_HUMAN	601152078F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3508362 5'
7705	20637	33935	0.95	1.0E-113	BE262161.1	EST_HUMAN	601152078F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3508362 5'
8126	21036	34365	0.5	1.0E-113	AW959960.1	EST_HUMAN	EST371030 IMAGE resequencing, FLJ11006 (FLJ11006), mRNA
9449	22377	35740	0.67	1.0E-113	8922819	NT	Homo sapiens hypothetical protein MAGE Homo sapiens cDNA
9840	22566	35935	3.14	1.0E-113	BE382842.1	EST_HUMAN	601287709F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3627564 5'
9840	22566	35936	3.14	1.0E-113	BE382842.1	EST_HUMAN	601287709F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3627564 5'
9937	22842		0.67	1.0E-113	BE772887.1	EST_HUMAN	RC1-FT0134-280600-021-002 FT0134 Homo sapiens cDNA
10346	23235	36853	1.22	1.0E-113	11429387	NT	Homo sapiens transmembrane protein 2 (TMEM2), mRNA
10440	23329	36747	0.62	1.0E-113	M21635.1	NT	Human erg protein (ets-related gene) mRNA, complete cds
10553	23439	36860	0.97	1.0E-113	5453997	NT	Homo sapiens RAN binding protein 7 (RANBP7), mRNA
10553	23439	36861	0.97	1.0E-113	5453997	NT	Homo sapiens RAN binding protein 7 (RANBP7), mRNA
11663	24472	37939	1.96	1.0E-113	AW500519.1	EST_HUMAN	U1-HF-BN0-akb-120-U1.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077328 5'
11571	24480	37946	1.57	1.0E-113	AW630291.1	EST_HUMAN	h81609.y1 NCI CGAP_GU1 Homo sapiens cDNA clone IMAGE:2869176 5' similar to TR:060327 O60327
11571	24480	37947	1.57	1.0E-113	AW630291.1	EST_HUMAN	KIAA0584 PROTEIN ;
11687	19612	32797	2.94	1.0E-113	6006002	NT	h81609.y1 NCI CGAP_GU1 Homo sapiens cDNA clone IMAGE:2869176 5' similar to TR:060327 O60327
11687	19612	32798	2.94	1.0E-113	6006002	NT	KIAA0584 PROTEIN ;
11708	24610	38087	3.18	1.0E-113	BE292968.1	EST_HUMAN	Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2A (GRIN2A) mRNA
61	13177	26078	6.19	1.0E-114	Y17151.2	NT	Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2A (GRIN2A) mRNA
61	13177	26080	6.19	1.0E-114	Y17151.2	NT	601105629F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2868396 5'
61	13177	26081	6.19	1.0E-114	Y17151.2	NT	Homo sapiens mRNA for multidrug resistance protein 3 (ABCC3)
							Homo sapiens mRNA for multidrug resistance protein 3 (ABCC3)
688	13730	26642	19.22	1.0E-114	T70551.1	EST_HUMAN	y415001.s1 Soares fetal liver spliced INFLS Homo sapiens cDNA clone IMAGE:108288 3' similar to gb:A21187 ALPHA-2-MACROGLOBULIN PRECURSOR (HUMAN); contains Alu repetitive element;
1098	14141	27078	1.53	1.0E-114	8923087	NT	Homo sapiens hypothetical protein FLJ20080 (FLJ20080), mRNA
1339	14372	27324	3.06	1.0E-114	7657528	NT	Homo sapiens rhabdoid tumor deletion region protein 1 (RTOR1), mRNA
1668	14638	27658	1.17	1.0E-114	6631094	NT	Homo sapiens rhabdoid tumor deletion region protein 1 (RTOR1), mRNA
1698	14728	27692	2.15	1.0E-114	6678073	NT	Homo sapiens minichromosome maintenance deficient 3 (MCM3), mRNA
2272	15282	28289	1.13	1.0E-114	AB002374.1	NT	Homo sapiens nucleoporin-like protein 1 (NLP_1), mRNA
2851	13163	26055	1.03	1.0E-114	AB033102.1	NT	Human mRNA for KIAA0376 gene, partial cds
2851	13163	26056	1.03	1.0E-114	AB033102.1	NT	Homo sapiens mRNA for KIAA1276 protein, partial cds
2851	13163	26056	1.03	1.0E-114	AB033102.1	NT	Homo sapiens mRNA for KIAA1276 protein, partial cds

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3176	16226	29120	2.37	1.0E-114	X04088.1	NT	Human gene for catalase (EC 1.1.1.6) exon 2 mapping to chromosome 11, band p13
3214	16252	29161	0.92	1.0E-114	BF206374.1	EST_HUMAN	80186932F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4100214 5'
4102	17127	30002	1.24	1.0E-114	AF149773.1	NT	Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3
4498	17508	30374	1.44	1.0E-114	J03171.1	NT	Human interferon-alpha receptor (HuIFN-alpha-R) mRNA, complete cdo
5239	18226		4.08	1.0E-114	11435940	NT	Homo sapiens keratin (KERA), mRNA
5287	18273	31121	0.69	1.0E-114	BE275324.1	EST_HUMAN	601122173F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3348099 3'
5585	18692	31537	1.39	1.0E-114	4506880	NT	Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A) mRNA
5585	18692	31538	1.39	1.0E-114	4506880	NT	Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A) mRNA
5789	18861	31869	1.17	1.0E-114	9257201	NT	Homo sapiens clathrin, heavy polypeptide-like 1 (CLTCL1), transcript variant 2, mRNA
6473	19518	32684	0.57	1.0E-114	Z26298.1	NT	H. sapiens isoform 1 gene for L-type calcium channel, exon 20
7339	18507	31263	0.44	1.0E-114	4759163	NT	Homo sapiens speractoneclin, cwev and kazal-like domains proteoglycan (testican) (SPOCK) mRNA
7432	20730		0.67	1.0E-114	AB041533.1	NT	Homo sapiens HCMOGT-1 mRNA for sperm antigen, complete cds
7609	20544	33835	1.21	1.0E-114	AU134187.1	EST_HUMAN	AU134187 OVARC1 Homo sapiens cDNA clone OVARC1001444 5'
7609	20544	33836	1.21	1.0E-114	AU134187.1	EST_HUMAN	AU134187 OVARC1 Homo sapiens cDNA clone OVARC1001444 5'
7661	20595	33893	7.34	1.0E-114	Y18000.1	NT	Homo sapiens NF2 gene
7661	20595	33894	7.34	1.0E-114	Y18000.1	NT	Homo sapiens NF2 gene
8471	21402	34741	2.09	1.0E-114	4557600	NT	Homo sapiens gamma-aminobutylic acid (GABA) A receptor, alpha 2 (GABRA2) mRNA
8745	21075	35017	1.48	1.0E-114	AI363139.1	EST_HUMAN	q98d06.x1 NCL CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2017163 3'
8745	21075	35018	1.48	1.0E-114	AI363139.1	EST_HUMAN	q98d06.x1 NCL CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2017163 3'
9259	22187	36544	3.17	1.0E-114	U63041.1	NT	Human neural cell adhesion molecule CD56 mRNA, complete cds
9328	22254	35619	6.67	1.0E-114	AB011133.1	NT	Homo sapiens mRNA for KIAA0561 protein, partial cds
9328	22254	35620	6.67	1.0E-114	AB011133.1	NT	Homo sapiens mRNA for KIAA0561 protein, partial cds
9948	22853		2.35	1.0E-114	AW327455.1	EST_HUMAN	dq0305.x1 NIH_MGC_2 Homo sapiens cDNA clone IMAGE:2846744 5'
9995	21352	34690	2.69	1.0E-114	AF077754.1	NT	Homo sapiens tyrosine kinase p160c-src (SRC) gene, exon 12 and partial cds
10077	22992		1.24	1.0E-114	M13538.1	NT	Human ceruloplasmin mRNA
10638	23524	36059	1.18	1.0E-114	BE870004.1	EST_HUMAN	601449752F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3853500 5'
10657	23543	36977	1.69	1.0E-114	AL163227.2	NT	Homo sapiens chromosome 21 segment HS21C027
11019	23903	37342	0.97	1.0E-114	BE171984.1	EST_HUMAN	MRC-HT0559-280200-002-d07 HT0559 Homo sapiens cDNA
							ba73g12.y1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2906086 5' similar to gb:X17208.405
11227	24153		5.73	1.0E-114	BE302669.1	EST_HUMAN	RIBOSOMAL PROTEIN S4 (HUMAN); gb:M20632 Mouse L18p3 protein mRNA from a repetitive element, complete (MOUSE);

Table 4.

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11635	24541	38014	2.78	1.0E-114	AV733454.1	EST_HUMAN	AV733454 cda Homo sapiens cDNA clone cdaBA08 5'
11635	24541	38015	2.78	1.0E-114	AV733454.1	EST_HUMAN	AV733454 cda Homo sapiens cDNA clone cdaBA08 5'
12871	25958		6.36	1.0E-114	11418041	NT	Homo sapiens TNF-Inducible protein CG12-1 (CG12-1), mRNA
12906	25491	31766	3.26	1.0E-114	11034850	NT	Homo sapiens hypothetical protein (DJ1042K10.2), mRNA
12906	25491	31767	3.26	1.0E-114	11034850	NT	Homo sapiens hypothetical protein (DJ1042K10.2), mRNA
23	13139	26027	3.97	1.0E-115	4758111	NT	Homo sapiens HLA-B associated transcript-1 (D6S81E) mRNA
134	13236	26154	1.33	1.0E-115	4505938	NT	Homo sapiens polymerase (RNA) II (DNA directed) polypeptide A (220kD) (POLR2A) mRNA
138	13240		12.97	1.0E-115	4557887	NT	Homo sapiens keratin 18 (KRT13) mRNA
312	13404	26321	2.78	1.0E-115	AW804759.1	EST_HUMAN	QV4-UM0094-300300-156-b08 UM0094 Homo sapiens cDNA
659	13628	26536	0.9	1.0E-115	AI339206.1	EST_HUMAN	q106f01.x1 NCL_CGAP_G04 Homo sapiens cDNA clone IMAGE:1946809 3' similar to TR:O00538 O00538
559	13928	26537	0.9	1.0E-115	AI339206.1	EST_HUMAN	q106f01.x1 NCL_CGAP_G04 Homo sapiens cDNA clone IMAGE:1946809 3' similar to TR:O00538 O00538
813	13888	26804	0.73	1.0E-115	5174702	NT	Homo sapiens transforming growth factor beta-activated kinase-binding protein 1 (TAB1), mRNA
813	13888	26805	0.73	1.0E-115	5174702	NT	Homo sapiens transforming growth factor beta-activated kinase-binding protein 1 (TAB1), mRNA
815	13870	26807	101	1.0E-115	4503794	NT	Homo sapiens ferritin, heavy polypeptide 1 (FTH1) mRNA
1590	14810	27571	3.2	1.0E-115	AF229180.1	NT	Homo sapiens alpha-aminoadipate semialdehyde synthase mRNA, complete cds
1590	14810	27572	3.2	1.0E-115	AF229180.1	NT	Homo sapiens alpha-aminoadipate semialdehyde synthase mRNA, complete cds
1850	14872	27854	1.77	1.0E-115	AJ277892.1	NT	Homo sapiens partial TTN gene for titin
1865	14897	27868	1.1	1.0E-115	U78027.1	NT	Homo sapiens Brubon's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds
3532	16570	29474	2.01	1.0E-115	AJ277892.1	NT	Homo sapiens partial TTN gene for titin
4126	17149	30024	4.78	1.0E-115	AB002348.2	NT	Homo sapiens mRNA for KIAA0350 protein, partial cds
4366	17380	30244	3.13	1.0E-115	AL137163.1	NT	Novel human gene mapping to chromosome X
4507	17517	30383	3.07	1.0E-115	6912659	NT	Homo sapiens sir2-like 3 (SIR2L3), mRNA
4542	17551	30411	3.2	1.0E-115	4758279	NT	Homo sapiens Epha4 (EPHA4) mRNA
4789	17793	30659	3.39	1.0E-115	AL094657.1	NT	Novel human mRNA from chromosome 1, which has similarities to BAT2 genes
4789	17793	30660	3.39	1.0E-115	AL094657.1	NT	Novel human mRNA from chromosome 1, which has similarities to BAT2 genes
5014	18012	30870	3.01	1.0E-115	AL163268.2	NT	Homo sapiens chromosome 21 segment HS21C068
5014	18012	30871	3.01	1.0E-115	AL163268.2	NT	Homo sapiens chromosome 21 segment HS21C068
5531	18610	31459	1.71	1.0E-115	AW970335.1	EST_HUMAN	EST382416 MAG resequencing, MAGK Homo sapiens cDNA
5609	18695	31564	1	1.0E-115	BF685387.1	EST_HUMAN	602119346F1 NIH_MGC_95 Homo sapiens cDNA clone IMAGE:4276738 5'
5732	18605	31899	2.09	1.0E-115	11425128	NT	Homo sapiens similar to ER to nucleus signalling 1 (H. sapiens) (LOC83433), mRNA
5732	18605	31900	2.09	1.0E-115	11425128	NT	Homo sapiens similar to ER to nucleus signalling 1 (H. sapiens) (LOC83433), mRNA

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Table 4  
Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5889	18958	32076	1.2	1.0E-115	A1928799.1	EST_HUMAN	au04g01.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2519558 3' similar to gb:L07807 DYNAMIN-1 (HUMAN);
5889	18958	32077	1.2	1.0E-115	A1928799.1	EST_HUMAN	au04g01.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2519558 3' similar to gb:L07807 DYNAMIN-1 (HUMAN);
6512	18956	32736	0.81	1.0E-115	11426786	NT	Homo sapiens sperm surface protein (HSS), mRNA
6512	18956	32737	0.81	1.0E-115	11426786	NT	Homo sapiens sperm surface protein (HSS), mRNA
6659	19938	32894	19.45	1.0E-115	11426038	NT	Homo sapiens similar to ribosomal protein S28 (H. sapiens) (LOC83436), mRNA
6807	19840	33050	1.84	1.0E-115	7691883	NT	Homo sapiens KIAA0054 gene product; Helicase (KIAA0054), mRNA
6807	19840	33051	1.84	1.0E-115	7691883	NT	Homo sapiens KIAA0054 gene product; Helicase (KIAA0054), mRNA
7264	20173	33414	0.8	1.0E-115	T86774.1	EST_HUMAN	y88608.r1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:115095 5' similar to SP-DPOG_YEAST P15801 DNA POLYMERASE GAMMA ;
7654	20588	33884	1.31	1.0E-115	A1076598.1	EST_HUMAN	oz31a06.x1 Soares fetal_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1676914 3'
7654	20588	33885	1.31	1.0E-115	A1076598.1	EST_HUMAN	oz31a06.x1 Soares fetal_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1676914 3'
7807	20736	34039	7.13	1.0E-115	AB023212.1	NT	Homo sapiens mRNA for KIAA0985 protein, partial cds
8738	21658	35013	11.26	1.0E-115	BE830187.1	EST_HUMAN	RC6-ET0081-130700-011-G01 ET0081 Homo sapiens cDNA
8738	21658	35014	11.26	1.0E-115	BE830187.1	EST_HUMAN	RC6-ET0081-130700-011-G01 ET0081 Homo sapiens cDNA
9371	22299	35661	3.27	1.0E-115	11434772	NT	Homo sapiens eukaryotic translation initiation factor 4B (EIF4B), mRNA
10294	23184	36595	0.77	1.0E-115	BF382029.1	EST_HUMAN	6018 (6352F1) NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4050108 5'
10504	23392	36803	2.11	1.0E-115	AB002336.1	NT	Human mRNA for KIAA0338 gene, partial cds
10504	23392	36804	2.11	1.0E-115	AB002336.1	NT	Human mRNA for KIAA0338 gene, partial cds
11001	23885	37317	1.07	1.0E-115	A1221878.1	EST_HUMAN	q999g09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843336 3'
11001	23885	37318	1.07	1.0E-115	A1221878.1	EST_HUMAN	q999g09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843336 3'
11007	23891	37325	0.76	1.0E-115	A1524687.1	EST_HUMAN	ih12a07.x1 NCL_CGAP_GLL1 Homo sapiens cDNA clone IMAGE:2118036 3' similar to TR:O16129 O16129 PHENYLALANINE TRNA SYNTHETASE ;
11159	24087	37534	3.71	1.0E-115	AW571544.1	EST_HUMAN	xx32108.x1 NCL_CGAP_U11 Homo sapiens cDNA clone IMAGE:2839239 3' similar to SW:CAYP_CANFA P10463 CALYPTOPHOSINE ;
11707	24609	38085	1.55	1.0E-115	BE045890.1	EST_HUMAN	hq54c10.x1 NCL_CGAP_Pan3 Homo sapiens cDNA clone IMAGE:3123186 3' similar to TR:O88378 O88378 PRP4 PROTEIN KINASE HOMOLOG ;
11707	24609	38086	1.55	1.0E-115	BE045890.1	EST_HUMAN	hq54c10.x1 NCL_CGAP_Pan3 Homo sapiens cDNA clone IMAGE:3123186 3' similar to TR:O88378 O88378 PRP4 PROTEIN KINASE HOMOLOG ;
11835	24688	38175	2.27	1.0E-115	4502528	NT	Homo sapiens calcium channel, voltage-dependent, alpha 1E subunit (CACNA1E) mRNA
12195	25030	38531	8.31	1.0E-115	BF361964.1	EST_HUMAN	GV2-NN0044-210800-306-e10 NN0044 Homo sapiens cDNA
12278	25092		1.62	1.0E-115	AF240786.1	NT	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds ;



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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
594	13651	26564	1.3	1.0E-116	BE275602.1	EST_HUMAN	601121347F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2988875 5'
827	13882	26819	1.28	1.0E-116	4507334	NT	Homo sapiens synaptotagmin 1 (SYNJ1), mRNA
884	13937		0.88	1.0E-116	4507334	NT	Homo sapiens synaptotagmin 1 (SYNJ1), mRNA
2013	15031	28024	1.83	1.0E-116	5174478	NT	Homo sapiens pericentrin (PCNT), mRNA
2013	16031	28026	1.93	1.0E-116	5174478	NT	Homo sapiens pericentrin (PCNT), mRNA
2039	15056	28056	0.96	1.0E-116	AU133080.1	EST_HUMAN	AU133080 NT2RP4 Homo sapiens cDNA clone NT2RP4001228 5'
2109	15916	28125	10.85	1.0E-116	M19824.1	NT	Human apolipoprotein B-100 (apoB) gene, exons 17 and 18
2109	15916	28126	10.85	1.0E-116	M19824.1	NT	Human apolipoprotein B-100 (apoB) gene, exons 17 and 18
2328	15336	28340	1.79	1.0E-116	6453941	NT	Homo sapiens protein phosphatase, EF hand calcium-binding domain 1 (PPEF1) mRNA
2364	15370		3.88	1.0E-116	U78308.1	NT	Human olfactory receptor olfr17-201-1 (OR17-201-1) gene, olfactory receptor olfr17-32 (OR17-32) gene and olfactory receptor pseudo_olfr17-01 (OR17-01) pseudogene, complete cds
2480	15492	28483	2.87	1.0E-116	AB018333.1	NT	Homo sapiens mRNA for KIAA0790 protein, partial cds
2763	15953	28769	1.56	1.0E-116	BE889258.1	EST_HUMAN	601613337F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3914800 5'
3217	16255	29163	5.91	1.0E-116	L77570.1	NT	Homo sapiens DiGeorge syndrome critical region, centromeric end
3217	16255	29164	5.91	1.0E-116	L77570.1	NT	Homo sapiens DiGeorge syndrome critical region, centromeric end
4485	17498	30356	2.48	1.0E-116	6031954	NT	Homo sapiens sodium phosphate transporter 3 (NPT3) mRNA
4955	17953	30821	1.32	1.0E-116	AI607098.1	EST_HUMAN	PM-BT135-070499-016 BT135 Homo sapiens cDNA
5461	18542	31363	0.83	1.0E-116	AI302092.1	EST_HUMAN	q18d04.x1 NCL_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1898695 3' similar to contains element MER25 repetitive element ;
6207	18282	32412	4	1.0E-116	W42822.1	EST_HUMAN	zc24d07.r1 Soares, senescent_fibroblasts NBHSF Homo sapiens cDNA clone IMAGE:323245 6' similar to SW:MDHM_MOUSE P08249 MALATE DEHYDROGENASE, MITOCHONDRIAL PRECURSOR ;
6455	19500	32674	1.79	1.0E-116	AB046858.1	NT	Homo sapiens mRNA for KIAA1636 protein, partial cds
6455	19500	32875	1.79	1.0E-116	AB046856.1	NT	Homo sapiens mRNA for KIAA1636 protein, partial cds
6529	19573	32755	0.99	1.0E-116	BE408097.1	EST_HUMAN	601302281F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3636764 6'
6690	19699	32895	9.55	1.0E-116	BF677910.1	EST_HUMAN	602084730F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249087 5'
6777	19811	33021	0.67	1.0E-116	5729887	NT	Homo sapiens heat domain and RLD 2 (HERC2), mRNA
6777	19811	33022	0.67	1.0E-116	5729887	NT	Homo sapiens heat domain and RLD 2 (HERC2), mRNA
6792	19825		2.52	1.0E-116	BE158133.1	EST_HUMAN	MR2-HT0379-210200-102-b04 HT0379 Homo sapiens cDNA
7274	20227	33475	1.93	1.0E-116	C02844.1	EST_HUMAN	C02844 Human heart cDNA (YNakamura) Homo sapiens cDNA clone 3NH00567
7559	20505	33793	19.36	1.0E-116	AV716314.1	EST_HUMAN	AV716314 DCB Homo sapiens cDNA clone DCBB006 5'
8941	21871	35230	2.27	1.0E-116	AA354256.1	EST_HUMAN	EST162885 Jurkat T-cells V Homo sapiens cDNA 5' end similar to keratin 2
8941	21871	35231	2.27	1.0E-116	AA354256.1	EST_HUMAN	EST162885 Jurkat T-cells V Homo sapiens cDNA 5' end similar to keratin 2
9049	21978	35334	0.66	1.0E-116	AI904151.1	EST_HUMAN	CM-BT0403-090289-075 BT043 Homo sapiens cDNA

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Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
9484	22422	35785	1.34	1.0E-116	BE565607.1	EST_HUMAN	601338269F1 NIH_MGC_S3 Homo sapiens cDNA clone IMAGE:3680680 5'
9844	22570	35941	4.33	1.0E-116	AI216352.1	EST_HUMAN	q00c05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1844168 3' similar to gb:X53741.ma1 FIBULIN-1, ISOFORM A PRECURSOR (HUMAN);
10199	23080	36491	1.53	1.0E-116	11418646	NT	Homo sapiens laminin, alpha 2 (merosin, congenital muscular dystrophy) (LAMA2), mRNA
10763	23649	37082	0.93	1.0E-116	AJ277441.1	NT	Homo sapiens partial mRNA for xylosyltransferase I (XT-I) gene
10763	23649	37083	0.93	1.0E-116	AJ277441.1	NT	Homo sapiens partial mRNA for xylosyltransferase I (XT-I) gene
10835	23721	37144	0.92	1.0E-116	BE158913.1	EST_HUMAN	QV4-HT0401-281299-063-c09 H10401 Homo sapiens cDNA
11128	24059	37505	2.98	1.0E-116	BF335949.1	EST_HUMAN	CM2-CT0482-300800-349-e06 CT0482 Homo sapiens cDNA
11574	24483	37951	3.2	1.0E-116	AJ397140.1	EST_HUMAN	qq41e04.x1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:1835102 3' similar to WP:80495.7 CE01765;
11622	24529	37998	14.28	1.0E-116	U22028.1	NT	Human cytochrome P450 (CYP2A13) gene, complete cds
12948	25825		1.62	1.0E-116	AL134889.1	EST_HUMAN	DKFZp782L1110_11 782 (synonym: hmel2) Homo sapiens cDNA clone DKFZp782L1110 5'
580	13948	26554	1.13	1.0E-117	4826636	NT	Homo sapiens acetyl-Coenzyme A carboxylase alpha (ACACA), mRNA
1105	15892	27087	0.97	1.0E-117	AF124393.1	NT	Mus musculus fragile-X-related protein 1 (Fxr1h) gene, exons 13a through 16
1263	14239	27232	1	1.0E-117	AF264750.1	NT	Homo sapiens ALR-like protein mRNA, partial cds
1778	14804	27772	1.24	1.0E-117	AF123920.1	NT	Homo sapiens lymphocyte activation-associated protein mRNA, complete cds
1855	14877	27857	11.96	1.0E-117	M19816.1	NT	Human epilipoprotein B-100 (apoB) gene, exon 10
2228	15236	28243	1.56	1.0E-117	AW957699.1	EST_HUMAN	EST369769 MAGe sequences, MAGe Homo sapiens cDNA
3312	16359	29260	1.51	1.0E-117	AA978114.1	EST_HUMAN	op32c11.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1578548 3'
4076	17102	29982	2.89	1.0E-117	AA316723.1	EST_HUMAN	EST188414 HCC cell line (metastasis to liver in mouse) II Homo sapiens cDNA 5' end similar to ribosomal protein L29
4453	17453	30320	2.02	1.0E-117	8659564	NT	Homo sapiens collagen, type IV, alpha 5 (Alport syndrome) (COL4A5), mRNA
4692	17637	30563	2.1	1.0E-117	AL042120.1	EST_HUMAN	DKFZp434C1120_11 434 (synonym: hhes3) Homo sapiens cDNA clone DKFZp434C1120 5'
4837	17838	30707	1.45	1.0E-117	X89670.1	NT	H. sapiens mRNA for TPCR16 protein
4837	17838	30708	1.45	1.0E-117	X89670.1	NT	H. sapiens mRNA for TPCR16 protein
4925	17924	30789	7.05	1.0E-117	AF134304.2	NT	Homo sapiens Scar2 (SCAR2) gene, partial cds
4925	17924	30789	7.05	1.0E-117	AF134304.2	NT	Homo sapiens Scar2 (SCAR2) gene, partial cds
5052	18049	30902	4.06	1.0E-117	AB020873.1	NT	Homo sapiens mRNA for KIAA0866 protein, complete cds
5532	18611	31460	4.14	1.0E-117	BE730508.1	EST_HUMAN	60162857F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3832214 5'
7292	18461	31332	0.57	1.0E-117	AA333346.1	EST_HUMAN	EST26111 Cerebellum II Homo sapiens cDNA 5' end similar to similar to zinc finger domain
7640	20575	33869	0.82	1.0E-117	4826977	NT	Homo sapiens reelin (RELN) mRNA
7854	20761	34083	7.19	1.0E-117	L76571.1	NT	Homo sapiens nuclear hormone receptor (shp) gene, 3' end of cds
7854	20761	34084	7.19	1.0E-117	L76571.1	NT	Homo sapiens nuclear hormone receptor (shp) gene, 3' end of cds
7978	20899	34213	3.63	1.0E-117	AV717788.1	EST_HUMAN	AV717788 DCB Homo sapiens cDNA clone DCBBAE01 5'

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
7978	20899	34214	3.63	1.0E-117	AV717788.1	EST_HUMAN	AV717788 DCB Homo sapiens cDNA clone DCBBAE01 5'
8557	21488	34828	1.21	1.0E-117	AI950145.1	EST_HUMAN	wp86507.x1 NCI_CGAP_Brn26 Homo sapiens cDNA clone IMAGE:2468629 3' similar to TR:O75065
8866	21816	35167	0.87	1.0E-117	10834989	NT	O75065 KIAA0477 PROTEIN. ;
8866	21816	35168	0.87	1.0E-117	10834989	NT	Homo sapiens neural cell adhesion molecule 1 (NCAM1), mRNA
8982	21912	35267	0.7	1.0E-117	AI904151.1	EST_HUMAN	Homo sapiens neural cell adhesion molecule 1 (NCAM1), mRNA
8982	21912	35268	0.7	1.0E-117	AI904151.1	EST_HUMAN	CV-BT043-080299-075 BT043 Homo sapiens cDNA
9839	22744	36126	1.48	1.0E-117	D16524.1	NT	CV-BT043-080299-075 BT043 Homo sapiens cDNA
10305	23195	36608	2.38	1.0E-117	BE739822.1	EST_HUMAN	Human gene for very low density lipoprotein receptor, exon 11
10454	25694	38760	0.71	1.0E-117	AF089033.1	NT	601569317F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3843748 5'
11042	23928	37367	0.83	1.0E-117	11420222	NT	Homo sapiens gamma-aminobutyric acid type B receptor 2 (GABABR2) mRNA, complete cds
11292	24212	37661	2.48	1.0E-117	D83776.1	NT	Homo sapiens Drosophila Kelch-like protein (DKELCHL), mRNA
11481	24376	37825	2.58	1.0E-117	W80605.1	EST_HUMAN	Human mRNA for KIAA0191, gene, partial cds
11720	24622	38101	2.74	1.0E-117	AB011541.1	NT	z883b11.1 Score: 100.000000 Homo sapiens cDNA clone IMAGE:347229 5' similar to gb:M14219 BONE PROTEOGLYCAN II PRECURSOR (HUMAN);
11720	24622	38102	2.74	1.0E-117	AB011541.1	NT	Homo sapiens mRNA for MEGF8, partial cds
11832	24683	38367	9.51	1.0E-117	BE269856.1	EST_HUMAN	Homo sapiens mRNA for MEGF8, partial cds
12024	24858	38367	1.45	1.0E-117	4501848	NT	601186203F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3544298 5'
12024	24858	38368	1.45	1.0E-117	4501848	NT	Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA
12488	25892	38368	2.07	1.0E-117	AF224669.1	NT	Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA
73	13188	26097	6.95	1.0E-118	AF161500.1	EST_HUMAN	Homo sapiens mimosinase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds
98	13211	26123	0.85	1.0E-118	AL045854.1	EST_HUMAN	Homo sapiens HSPC151 mRNA, complete cds
840	13809	26519	13.37	1.0E-118	7657016	NT	DKFZp434I056_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434I056 5'
839	15888	26933	1.3	1.0E-118	5174680	NT	Homo sapiens hypothetical protein (D328E19.C1.1), mRNA
2248	15258	28264	2.84	1.0E-118	BE389705.1	EST_HUMAN	Homo sapiens sine oculis homeobox (Drosophila) homolog 1 (SIX1) mRNA
2248	15258	28265	2.84	1.0E-118	BE389705.1	EST_HUMAN	601281947F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3604019 5'
2248	15258	28266	2.84	1.0E-118	BE389705.1	EST_HUMAN	601281947F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3604019 5'
2351	15359	28775	1.72	1.0E-118	AW951729.1	EST_HUMAN	601281947F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3604019 5'
2769	15779	28775	1.77	1.0E-118	U07000.1	NT	EST1363799 IMAGE sequences: MAGB Homo sapiens cDNA
2769	15779	28776	1.77	1.0E-118	U07000.1	NT	Human breakpoint cluster region (BCR) gene, complete cds
3151	16231	29190	5.71	1.0E-118	Y13932.1	NT	Human breakpoint cluster region (BCR) gene, complete cds
3239	16237	29190	6.63	1.0E-118	AI347694.1	EST_HUMAN	Homo sapiens PRKY, exon 7
3239	16237	29191	6.53	1.0E-118	AI347694.1	EST_HUMAN	qp01f05.x1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1916769 3'
3239	16237	29191	6.53	1.0E-118	AI347694.1	EST_HUMAN	qp01f05.x1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1916769 3'

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Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4028	17055	28944	1.4	1.0E-118	AB024469.1	NT	Pongo pygmaeus DNA, similar to pol gene of HERV-W and MSRV, isolate ORW3-3
4176	17196	30066	1.11	1.0E-118	D23660.1	NT	Human mRNA for ribosomal protein, complete cds
5608	18934	31562	2.1	1.0E-118	AF142624.1	NT	Homo sapiens calcium channel gamma 4 subunit (CACNG4) gene, exon 3
5608	18934	31563	2.1	1.0E-118	AF142624.1	NT	Homo sapiens calcium channel gamma 4 subunit (CACNG4) gene, exon 3
5826	18997	32010	0.62	1.0E-118	11422054	NT	Homo sapiens reelin (RELN), mRNA
5826	18997	32011	0.62	1.0E-118	11422054	NT	Homo sapiens reelin (RELN), mRNA
5913	18982	32100	0.63	1.0E-118	U08892.1	NT	Human GS2 gene, exon 6
5913	18982	32101	0.63	1.0E-118	U08892.1	NT	Human GS2 gene, exon 6
5979	19044	32167	1.12	1.0E-118	M55109.1	NT	Human cystic fibrosis transmembrane conductance regulator (CFTR) gene, exon 4
6077	19138	32273	0.95	1.0E-118	11425900	NT	Homo sapiens T-box 4 (TBX4), mRNA
6077	19138	32274	0.95	1.0E-118	11425900	NT	Homo sapiens T-box 4 (TBX4), mRNA
6168	19223	32369	1.48	1.0E-118	11420764	NT	Homo sapiens transient receptor potential channel 5 (TRPC5), mRNA
6988	20015	33246	1.56	1.0E-118	4557732	NT	Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2) mRNA
6988	20015	33247	1.56	1.0E-118	4557732	NT	Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2) mRNA
7456	20396	33667	1.1	1.0E-118	AL043761.1	EST_HUMAN	DKFZp434O0127_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434O0127 5'
7456	20396	33668	1.1	1.0E-118	AL043761.1	EST_HUMAN	DKFZp434O0127_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434O0127 5'
8043	20957	34272	5.21	1.0E-118	11431050	NT	Homo sapiens chromosome 2 open reading frame 3 (C2ORF3), mRNA
8058	20971	34287	0.66	1.0E-118	L46590.1	NT	Homo sapiens very long chain acyl-CoA dehydrogenase gene, exons 1-20, complete cds
8550	21451	34822	1.99	1.0E-118	BE781223.1	EST_HUMAN	601469159F1 NIH_MGC 87 Homo sapiens cDNA clone IMAGE:3872247 5'
8954	21894	36242	7.85	1.0E-118	BE062855.1	EST_HUMAN	QV0-BT0263-090200-087-h03 BT0263 Homo sapiens cDNA
8954	21894	35243	7.85	1.0E-118	BE062855.1	EST_HUMAN	QV0-BT0263-090200-087-h03 BT0263 Homo sapiens cDNA
8960	21890	35248	1.32	1.0E-118	AA443024.1	EST_HUMAN	z88d07.r1 Soares_NIHMPu_S1 Homo sapiens cDNA clone IMAGE:811789 5'
8960	21890	35249	1.32	1.0E-118	AA443024.1	EST_HUMAN	z88d07.r1 Soares_NIHMPu_S1 Homo sapiens cDNA clone IMAGE:811789 5'
9231	22159	35513	0.66	1.0E-118	AB002381.1	NT	Human mRNA for KIAA0383 gene, partial cds
9231	22159	35514	0.66	1.0E-118	AB002381.1	NT	Human mRNA for KIAA0383 gene, partial cds
9280	22208	35565	1.68	1.0E-118	4557732	NT	Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2) mRNA
9280	22208	35566	1.68	1.0E-118	4557732	NT	Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2) mRNA
9587	22513	35876	3.65	1.0E-118	BE263134.1	EST_HUMAN	601144863F2 NIH_MGC 19 Homo sapiens cDNA clone IMAGE:3160502 5'
9618	22544	35915	0.68	1.0E-118	AL048474.2	EST_HUMAN	DKFZp586K1824_r1 586 (synonym: hude1) Homo sapiens cDNA clone DKFZp586K1824
10121	23012	36408	1.2	1.0E-118	7657016	NT	Homo sapiens hypothetical protein (DJ328E19.G1.1), mRNA
10492	23380	36793	0.66	1.0E-118	AL138321.1	EST_HUMAN	DKFZp5470017_r1 547 (synonym: hbr1) Homo sapiens cDNA clone DKFZp5470017 5'
							7n17609.x1 NC1 CGAP Brn23 Homo sapiens cDNA clone IMAGE:3564785 3' similar to SW:ZP3A_HUMAN
10863	23749	37174	1.72	1.0E-118	BF195407.1	EST_HUMAN	P21754 ZONA PELLUCIDA SPERM-BINDING PROTEIN 3A PRECURSOR

Table 4

## Single Exon Probes Expressed In Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
10946	23831	37257	1.06	1.0E-118	AW271289.1	EST_HUMAN	xs46a10.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:272666 3' similar to SW:BODG HUMAN O75936 GAMMA-BUTYROBETAINE 2-OXOGLUTARATE DIOXYGENASE ;
11013	23867	37332	0.5	1.0E-118	AW290351.1	EST_HUMAN	U1-HBW0-ab-e-07-0.U1.s1 NCL CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2729772 3'
11715	24617	38093	1.43	1.0E-118	11055968	NT	Homo sapiens protein with polyglutamine repeat; calcium (ca2+) homeostasis endoplasmic reticulum protein (ERPOT1213-21), mRNA
11723	24625	38106	1.53	1.0E-118	AA315007.1	EST_HUMAN	EST186814 HCC cell line (metastasis to liver in mouse) II Homo sapiens cDNA 5' end similar to dynein, light chain 1, cytoplasmic
11994	24636	38334	1.52	1.0E-118	BF093687.1	EST_HUMAN	QV0-JM0091-120900-385-b12 JM0091 Homo sapiens cDNA
11994	24836	38335	1.59	1.0E-118	BF093687.1	EST_HUMAN	QV0-JM0091-120900-385-b12 JM0091 Homo sapiens cDNA
782	13838	26773	1.33	1.0E-119	AF170492.1	NT	Homo sapiens chloride channel CLC4 (CLC4) mRNA, complete cds
1063	13861	27044	2.19	1.0E-119	7705607	NT	Homo sapiens CGI-105 protein (LOC51011), mRNA
1948	14969	27948	2.47	1.0E-119	AB023147.1	NT	Homo sapiens mRNA for KIAA0830 protein, partial cds
3149	16169	28091	1.15	1.0E-119	8922205	NT	Homo sapiens hypothetical protein FLJ10052 (FLJ10052), mRNA
3286	16333		1.14	1.0E-119	AA816760.1	EST_HUMAN	on1005.st NCL CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1566241 3' similar to WP:EO4F6.2 CE01214 ;
4034	17081	29950	1.03	1.0E-119	4504118	NT	Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRUK1) mRNA
5521	18600	31449	3.02	1.0E-119	AU133399.1	EST_HUMAN	AU133399 NT2RP4 Homo sapiens cDNA clone NT2RP4001891 5'
5534	18613	31462	17	1.0E-119	M88914.1	NT	Human neurofibromin (NF1) gene, complete cds
5539	18618	31469	2.85	1.0E-119	BE935121.1	EST_HUMAN	RC1-NN0073-250800-018-q06 NN0073 Homo sapiens cDNA
6619	18695	31591	1.15	1.0E-119	AV693731.1	EST_HUMAN	AY693731 GKC Homo sapiens cDNA clone GKCDHB03 5'
5704	18856	31963	0.76	1.0E-119	AL134903.1	EST_HUMAN	DKFp762M0710_r11762 (synonym: hmel2) Homo sapiens cDNA clone DKFp762M0710 5'
5784	18856	31964	0.75	1.0E-119	AL134903.1	EST_HUMAN	DKFp762M0710_r11762 (synonym: hmel2) Homo sapiens cDNA clone DKFp762M0710 5'
6367	19416	32581	6.59	1.0E-119	AU150703.1	EST_HUMAN	qb77c09.x1 Soares fetal heart NbhH19W Homo sapiens cDNA clone IMAGE:1706128 3' similar to SW:K1CJ_MOUSE P02535 KERATIN, TYPE I CYTOSKELETAL 10 ;
6536	19580	32762	0.58	1.0E-119	AF315683.1	NT	Homo sapiens matrix metalloproteinase 28 (MMP28) mRNA, complete cds
6536	19580	32763	0.58	1.0E-119	AF315683.1	NT	Homo sapiens matrix metalloproteinase 28 (MMP28) mRNA, complete cds
6588	19629	32811	1.35	1.0E-119	AI476732.1	EST_HUMAN	hm23110.x1 Soares_NFL_I_G3C_S1 Homo sapiens cDNA clone IMAGE:2167451 3'
6733	19768	32976	2.86	1.0E-119	X05292.1	NT	Human c-fes/tps proto-oncogene
6745	19779	32992	4.48	1.0E-119	AW874193.1	EST_HUMAN	EST386286 IMAGE resequencas, MAGM Homo sapiens cDNA
7809	20738	34041	1.09	1.0E-119	BE796314.1	EST_HUMAN	60159205F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3946081 5'
8021	20937	34252	0.51	1.0E-119	AJ277557.1	NT	Homo sapiens dNT-2 gene for mitochondrial 5'(3')-deoxyribonucleotidase (dNT-2 gene), exons 1-5
9220	22148	35501	1.1	1.0E-119	BE615150.1	EST_HUMAN	60128056F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3622525 5'
10418	23307	36727	1.24	1.0E-119	11036643	NT	Homo sapiens KIAA0477 gene product (KIAA0477), mRNA

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
10607	23493	36923	0.53	1.0E-119	AI149796.1	EST_HUMAN	q143a11.x1 Scores_testis_NHT Homo sapiens cDNA clone IMAGE:1762764 3' similar to TRQ13458
10740	23828	37056	2.97	1.0E-119	AA465124.1	EST_HUMAN	Q13458 GUANINE NUCLEOTIDE EXCHANGE FACTOR PROTEIN TRIO.1
10982	23856	37293	0.76	1.0E-119	AJ297701.1	NT	aa3205.r1 NCL_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:814977 5'
11022	23906	37345	0.9	1.0E-119	11425837	NT	Homo sapiens partial IL-12RB1 gene for IL-12 receptor beta1 chain, exons 16-17
11022	23906	37346	0.9	1.0E-119	11425837	NT	Homo sapiens hypothetical protein FLJ10206 (FLJ10206), mRNA
11492	24404	37855	1.59	1.0E-119	AJ297701.1	NT	Homo sapiens partial IL-12RB1 gene for IL-12 receptor beta1 chain, exons 16-17
11492	24404	37856	1.59	1.0E-119	AJ297701.1	NT	Homo sapiens partial IL-12RB1 gene for IL-12 receptor beta1 chain, exons 16-17
11849	24555		2.24	1.0E-119	BF568571.1	EST_HUMAN	602186072F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310833 5'
12842	25981		5.11	1.0E-119	AW847519.1	EST_HUMAN	RCS-CT0212-240969.011-403 CT0212 Homo sapiens cDNA
12833	25711		1.48	1.0E-119	X89211.1	NT	H. sapiens DNA for endogenous retroviral like element
256	13353	26269	0.64	1.0E-120	AB018301.1	NT	Homo sapiens mRNA for KIAA0158 protein, partial cds
321	13413	26330	1.09	1.0E-120	4507334	NT	Homo sapiens synaptotagmin 1 (SYNJ1), mRNA
1067	14111	27050	2.02	1.0E-120	AF248540.1	NT	Homo sapiens intersectin 2 (SH3D1B), mRNA, complete cds
1067	14111	27051	2.02	1.0E-120	AF248540.1	NT	Homo sapiens intersectin 2 (SH3D1B), mRNA, complete cds
1447	14478	27437	1.51	1.0E-120	N44873.1	EST_HUMAN	y40g12.r1 Scores melanocyte 2NbhM Homo sapiens cDNA clone IMAGE:273766 5'
1624	14654	27618	3.59	1.0E-120	AF167706.1	NT	Homo sapiens cysteine-rich repeat-containing protein S62 precursor, mRNA, complete cds
1828	14851	27828	1.21	1.0E-120	4557250	NT	Homo sapiens disintegrin and metalloprotease domain 10 (ADAM10) mRNA
2119	15132	28138	1.62	1.0E-120	AB011399.1	NT	Homo sapiens gene for AF-6, complete cds
2556	15556	28564	1.04	1.0E-120	4755124	NT	Homo sapiens gene for AF-6, complete cds
3353	13413	26330	0.65	1.0E-120	4507334	NT	Homo sapiens synaptotagmin 1 (SYNJ1), mRNA
4467	17478	30337	2.42	1.0E-120	AF056490.1	NT	Homo sapiens cAMP-specific phosphodiesterase 8A (PDE8A) mRNA, partial cds
4467	17478	30338	2.42	1.0E-120	AF056490.1	NT	Homo sapiens cAMP-specific phosphodiesterase 8A (PDE8A) mRNA, partial cds
4774	17779	30648	1.72	1.0E-120	AF098463.1	NT	Homo sapiens slanniocalcin (SIC) gene, partial cds
4774	17779	30649	1.72	1.0E-120	AF098463.1	NT	Homo sapiens slanniocalcin (SIC) gene, partial cds
5128	18124	30968	0.98	1.0E-120	AF054821.1	NT	Homo sapiens cyclochrome P-450 mRNA, complete cds
5323	18307	31157	1.14	1.0E-120	AI904151.1	EST_HUMAN	CM-BT043-090289-075 BT043 Homo sapiens cDNA
5938	19005	32124	13.82	1.0E-120	BF568222.1	EST_HUMAN	602183994F1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300174 5'
5938	19005	32125	13.82	1.0E-120	BF568222.1	EST_HUMAN	602183994F1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300174 5'
8006	20923	34239	1.66	1.0E-120	D34819.1	NT	Human TBXAS1 gene for thromboxane synthase, exon 7
8393	21287	34618	0.53	1.0E-120	BE785642.1	EST_HUMAN	601475178F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3878155 5'
8393	21287	34619	0.53	1.0E-120	BE785642.1	EST_HUMAN	601475178F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3878155 5'
8396	21296	34629	0.46	1.0E-120	AB023177.1	NT	Homo sapiens mRNA for KIAA0980 protein, partial cds

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Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8474	21405	34743	1.76	1.0E-120	Y00087.1	NT	Human gene for neurofilament subunit M (NF-M)
8474	21405	34744	1.76	1.0E-120	Y00087.1	NT	Human gene for neurofilament subunit M (NF-M)
8907	21837	35183	4.04	1.0E-120	BF337599.1	EST_HUMAN	602035352F1 NCL_CGAP_Brr64 Homo sapiens cDNA clone IMAGE:4183333 5'
8975	21905	35261	1.02	1.0E-120	AB033057.1	NT	Homo sapiens mRNA for KIAA1231 protein, partial cds
8976	21906	35262	1.02	1.0E-120	AB033057.1	NT	Homo sapiens mRNA for KIAA1231 protein, partial cds
8979	21909	35264	2.05	1.0E-120	AB007664.1	NT	Homo sapiens mRNA, chromosome 1 specific transcript KIAA0495
8979	21909	35265	2.05	1.0E-120	AB007664.1	NT	Homo sapiens mRNA, chromosome 1 specific transcript KIAA0485
9021	21950	35306	1.21	1.0E-120	AB007634.1	NT	Homo sapiens mRNA for KIAA0465 protein, partial cds
10033	22933	36320	4.84	1.0E-120	BE392102.1	EST_HUMAN	601307739F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3625544 5'
10033	22933	36321	4.84	1.0E-120	BE392102.1	EST_HUMAN	601307739F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3625544 5'
10265	23155	36566	3.95	1.0E-120	BF306541.1	EST_HUMAN	601886956F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4122876 5'
10280	23170	36563	5.12	1.0E-120	AU133205.1	EST_HUMAN	AU133205 NT2RP4 Homo sapiens cDNA clone NT2RP4001541 5'
10286	23186	36598	0.8	1.0E-120	AL049801.1	NT	Novel human gene mapping to chromosome 13, similar to ret RhoGAP
10404	23293		0.58	1.0E-120	AI804151.1	EST_HUMAN	CM-BT043-090289-078 BT043 Homo sapiens cDNA
10578	23454	36988	3.24	1.0E-120	AB029000.1	NT	Homo sapiens mRNA for KIAA1377 protein, partial cds
11566	24475	37942	2.16	1.0E-120	BE286387.1	EST_HUMAN	601178727F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532015 5'
11784	24706	38197	1.42	1.0E-120	BE867619.1	EST_HUMAN	601443135F1 NIH_MGC_85 Homo sapiens cDNA clone IMAGE:3847281 5'
11784	24706	38198	1.42	1.0E-120	BE867619.1	EST_HUMAN	601443135F1 NIH_MGC_85 Homo sapiens cDNA clone IMAGE:3847281 5'
78	13190	26101	0.98	1.0E-121	Y18000.1	NT	Homo sapiens NF2 gene
399	13481	26401	0.74	1.0E-121	AU134963.1	EST_HUMAN	AU134963 PLACE1 Homo sapiens cDNA clone PLACE1000899 5'
747	15882	26729	1.44	1.0E-121	6032192	NT	Homo sapiens TNF receptor-associated factor 1 (TRAF1) mRNA
1596	14627	27587	0.93	1.0E-121	AB011153.1	NT	Homo sapiens mRNA for KIAA0581 protein, partial cds
1981	14999	27984	0.94	1.0E-121	4755139	NT	Homo sapiens inositol polyphosphate-4-phosphatase, type I, 107kD (NPP4A), splice variant a, mRNA
1981	14999	27985	0.94	1.0E-121	4755139	NT	Homo sapiens inositol polyphosphate-4-phosphatase, type I, 107kD (NPP4A), splice variant a, mRNA
2114	15127	28132	1.02	1.0E-121	L76631.1	NT	Homo sapiens melastatin-like receptor 1 beta (mGluR1beta) mRNA, complete cds
3130	16180	29074	3.61	1.0E-121	Y19208.1	NT	Homo sapiens hH3 gene for hair keratin, exons 1 to 9
3130	16180	29075	3.61	1.0E-121	Y19208.1	NT	Homo sapiens hH3 gene for hair keratin, exons 1 to 9
3598	16635	29540	1.25	1.0E-121	AB037758.1	NT	Homo sapiens mRNA for KIAA1337 protein, partial cds
3598	16635	29541	1.26	1.0E-121	AB037758.1	NT	Homo sapiens mRNA for KIAA1337 protein, partial cds
3745	16777	29668	9.91	1.0E-121	AF155156.2	NT	Homo sapiens adaptor-related protein complex AP-4 epsilon subunit mRNA, complete cds
4438	17449	30309	2.03	1.0E-121	AI263294.1	EST_HUMAN	qk57b01.x1 NCL_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2005417 3'
5097	18094	30941	4.29	1.0E-121	X91937.1	NT	H.sapiens ECE-1 gene (exon 17)

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5350	18333	31181	1.01	1.0E-121	AB032481.1	NT	Homo sapiens HOXD13 gene for homeobox transcription factor, complete cds
5450	18531	31267	0.8	1.0E-121	BE222250.1	EST_HUMAN	hu0908.xt NC1 CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3168119 3'
5703	18828	31825	0.53	1.0E-121	BE271424.1	EST_HUMAN	601140486F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3049820 5'
6910	19940	33159	0.46	1.0E-121	M91463.1	NT	Human glucose transporter (GLUT4) gene, complete cds
7215	20215		0.91	1.0E-121	AJ271736.1	NT	Homo sapiens Xq pseudocautosomal region, segment 2/2
7289	18468	31289	0.77	1.0E-121	AW898086.1	EST_HUMAN	RC3-NN0066-270400-011-402 NN0066 Homo sapiens cDNA
7299	18468	31290	0.77	1.0E-121	AW898086.1	EST_HUMAN	RC3-NN0066-270400-011-402 NN0066 Homo sapiens cDNA
8516	21447	34789	1.36	1.0E-121		NT	Homo sapiens gamma-aminobutyric acid (GABA) A receptor, alpha 2 (GABRA2), mRNA
8520	21451	34783	2.37	1.0E-121	D84122.1	NT	Homo sapiens DNA for prostacyclin synthase, exon 8
8520	21451	34794	2.37	1.0E-121	D84122.1	NT	Homo sapiens DNA for prostacyclin synthase, exon 8
10372	23261	36682	1.19	1.0E-121	AW583968.1	EST_HUMAN	la05g05.y1 Human Pancreatic Islets Homo sapiens cDNA 5' similar to TR:075457 075457 CYTOSOLIC PHOSPHOLIPASE A2-GAMMA, :
10372	23261	36683	1.19	1.0E-121	AW583968.1	EST_HUMAN	la05g05.y1 Human Pancreatic Islets Homo sapiens cDNA 5' similar to TR:075457 075457 CYTOSOLIC PHOSPHOLIPASE A2-GAMMA, :
11215	24141	37593	2.35	1.0E-121	11427788	NT	Homo sapiens COX11 (yeast) homolog, cytochrome c oxidase assembly protein (COX11), mRNA
11222	24148	37599	13.65	1.0E-121	AF064200.1	NT	Homo sapiens UDP-glucuronosyltransferase 2B4 precursor (UGT2B4) mRNA, UGT2B4*E458 allele, complete cds
11407	24323	37773	2.62	1.0E-121	7330334	NT	Homo sapiens chloride intracellular channel 4 like (CLIC4L), mRNA
11433	24349	37785	1.51	1.0E-121	N59624.1	EST_HUMAN	y74c01.s1 Soares fetal liver spleen 1NFSL Homo sapiens cDNA clone IMAGE:248448 3'
287	13381	26295	1.5	1.0E-122	11528176	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1), mRNA
356	13443	26355	2.08	1.0E-122	AF114488.1	NT	Homo sapiens Intersectin short isoform (ITSN) mRNA, complete cds
378	13463	26380	1.99	1.0E-122	11528176	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1), mRNA
807	13939	26907	3.23	1.0E-122	AF114488.1	NT	Homo sapiens Intersectin short isoform (ITSN) mRNA, complete cds
1248	14284	27227	5.68	1.0E-122	M20707.1	NT	Human kappa-immunoglobulin germline pseudogene (Chr22.4) variable region (subgroup V kappa II)
1719	14747	27715	1.63	1.0E-122	AF167708.1	NT	Homo sapiens cysteine-rich repeat-containing protein S52 precursor, mRNA, complete cds
1741	14758	27739	2.09	1.0E-122	11418424	NT	Homo sapiens collagen, type XII, alpha 1 (COL12A1), mRNA
1741	14758	27740	2.09	1.0E-122	11418424	NT	Homo sapiens collagen, type XII, alpha 1 (COL12A1), mRNA
1836	14859	27841	6.18	1.0E-122	BE906024.1	EST_HUMAN	Homo sapiens collagen, type XII, alpha 1 (COL12A1), mRNA
2514	15515	28518	5.05	1.0E-122	BF316170.1	EST_HUMAN	601497032F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3899358 5'
2514	15515	28519	5.05	1.0E-122	BF316170.1	EST_HUMAN	601497032F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4126234 5'
4958	17956	30814	1.1	1.0E-122	4502169	NT	Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA
5111	18108		1.52	1.0E-122	AW504645.1	EST_HUMAN	UHF-BND-ali-a-03-0-U1.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3076948 5'



Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5755	18828	31928	1.22	1.0E-122	BE266039.1	EST_HUMAN	601113567F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3354232 5'
7061	18828	31928	6.36	1.0E-122	BE266039.1	EST_HUMAN	601113567F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3354232 5'
7581	20517	33808	0.47	1.0E-122	AA686071.1	EST_HUMAN	ak48h06.a1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1409339 3'
8358	21263	34597	0.48	1.0E-122	AA224259.1	EST_HUMAN	zr15a03.r1 Sitratagene NT2 neuronal precursor 937230 Homo sapiens cDNA clone IMAGE:683436 5' similar to TR:G940370 G940370 1-AMINOCYCLOPROPANE-1-CARBOXYLATE SYNTHASE ;
8358	21263	34597	0.48	1.0E-122	AA224259.1	EST_HUMAN	zr15a03.r1 Sitratagene NT2 neuronal precursor 937230 Homo sapiens cDNA clone IMAGE:683436 5' similar to TR:G940370 G940370 1-AMINOCYCLOPROPANE-1-CARBOXYLATE SYNTHASE ;
8358	21263	34597	0.48	1.0E-122	AA224259.1	EST_HUMAN	zr15a03.r1 Sitratagene NT2 neuronal precursor 937230 Homo sapiens cDNA clone IMAGE:683436 5' similar to TR:G940370 G940370 1-AMINOCYCLOPROPANE-1-CARBOXYLATE SYNTHASE ;
9354	22282	35843	0.63	1.0E-122	AJ276801.1	NT	Homo sapiens mRNA for doublesex and mab-3 related transcription factor 1 (DMRT1)
9578	22506	35870	1.42	1.0E-122	11424218	NT	Homo sapiens lethal giant larvae (Drosophila) homolog 2 (LLGL2), mRNA
9853	22778	36166	1.07	1.0E-122	AJ359618.1	EST_HUMAN	qy32h07.x1 NCI_GGAP_Brn23 Homo sapiens cDNA clone IMAGE:2013757 3' similar to SW:MTA1_HUMAN Q13330 METASTASIS-ASSOCIATED PROTEIN MTA1. ;
9853	22778	36166	1.07	1.0E-122	AJ359618.1	EST_HUMAN	qy32h07.x1 NCI_GGAP_Brn23 Homo sapiens cDNA clone IMAGE:2013757 3' similar to SW:MTA1_HUMAN Q13330 METASTASIS-ASSOCIATED PROTEIN MTA1. ;
10633	23519	36953	0.87	1.0E-122	AL117234.1	NT	Novel human gene mapping to chromosome X, isoform of dbi (proto-oncogene)
11425	24341	37786	1.53	1.0E-122	AW955834.1	EST_HUMAN	EST367904 MAGe resequencing, MAGD Homo sapiens cDNA
12314	25119	26215	6.21	1.0E-122	11418187	NT	Homo sapiens phosphonannomylase 1 (PMM1), mRNA
201	13300	26215	19.2	1.0E-123	U31519.1	NT	Human phosphoenolpyruvate carboxylase (PCK1) gene, promoter region and partial cds
794	13849	26783	2.17	1.0E-123	BF345274.1	EST_HUMAN	602018058F1 NCI_GGAP_Brn67 Homo sapiens cDNA clone IMAGE:4153670 5'
794	13849	26784	2.17	1.0E-123	BF345274.1	EST_HUMAN	602018058F1 NCI_GGAP_Brn67 Homo sapiens cDNA clone IMAGE:4153670 5'
1040	14086	27025	6.09	1.0E-123	AL163249.2	NT	Homo sapiens chromosome 21 segment HS21C049
1049	14093	27032	3.01	1.0E-123	5803114	NT	Homo sapiens inner membrane protein, mitochondrial (mitofilin) (IMMT), mRNA
1266	14300	27247	4.34	1.0E-123	4505818	NT	Homo sapiens phosphatidylinositol-4-phosphate 5-kinase, type II, beta (PIP5K2B), mRNA, and translated products
1266	14300	27248	4.34	1.0E-123	4505818	NT	Homo sapiens phosphatidylinositol-4-phosphate 5-kinase, type II, beta (PIP5K2B), mRNA, and translated products
1474	14505	27487	5.94	1.0E-123	AJ388941.1	NT	Homo sapiens partial mRNA for immunoglobulin kappa chain variable region (IGVK gene), sample GN02
2111	15124	28128	2.36	1.0E-123	M55419.1	NT	Human amelogenin (AMELY) gene, 3' end of cds
2111	15124	28129	2.36	1.0E-123	M55419.1	NT	Human amelogenin (AMELY) gene, 3' end of cds
2111	15124	28130	2.36	1.0E-123	M55419.1	NT	Human amelogenin (AMELY) gene, 3' end of cds
2336	15344	31607	3.14	1.0E-123	7705902	NT	Homo sapiens RAB9-like protein (LOC51209), mRNA
5632	18708	31607	1.64	1.0E-123	L34219.1	NT	Homo sapiens retinaldehyde-binding protein (CRALBP) gene, complete cds
5632	18708	31608	1.64	1.0E-123	L34219.1	NT	Homo sapiens retinaldehyde-binding protein (CRALBP) gene, complete cds
5773	18846	31949	1.42	1.0E-123	BE799748.1	EST_HUMAN	601591108F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3945433 5'

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6742	19776	32989	1.88	1.0E-123	AU118435.1	EST_HUMAN	AU118435 HEMBA1 Homo sapiens cDNA clone HEMBA1003591 5'
7347	20343	33609	0.94	1.0E-123	H53198.1	EST_HUMAN	Yc84a03.r1 Soares fetal liver spleen 1NPLS Homo sapiens cDNA clone IMAGE:202444 5' similar to SP:YAK1_YEAST P44880 PROTEIN KINASE YAK1 ;
7360	20355	33624	1.36	1.0E-123	U42224.1	NT	Human growth hormone releasing hormone gene, exon 7
7558	20495	33785	0.57	1.0E-123	U55258.1	NT	Human hBRAVO/INr-CAM precursor (hBRAVO/INr-CAM) gene, complete cds
7601	20730	34032	0.88	1.0E-123	11525833	NT	Homo sapiens heparan sulfate (glucosaminyl) 3-O-sulfotransferase 2 (HS3ST2), mRNA
8091	21003	34328	1.32	1.0E-123	11496439	NT	Homo sapiens 2'-5'-oligoadenylate synthetase 2 (OAS2), mRNA
8100	21012	34338	1.94	1.0E-123	BE263001.1	EST_HUMAN	601182816F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3509162 5'
8108	21020	34346	0.57	1.0E-123	11437202	NT	Homo sapiens hypothetical protein FLJ20184 (FLJ20184), mRNA
8282	21187	34524	0.48	1.0E-123	N35841.1	EST_HUMAN	Yc89d11.r1 Soares melanocyte 2NbhM Homo sapiens cDNA clone IMAGE:268917 5' similar to PIR:S49811
8282	21187	34525	0.48	1.0E-123	N35841.1	EST_HUMAN	S49811 protein kinase PtkpA - Phycomyces blakesleeanus ;
8366	21270	34604	0.42	1.0E-123	AA308629.1	EST_HUMAN	EST177573 Jurkat T-cells VI Homo sapiens cDNA 5' end similar to similar to multiple drug resistance-associated protein
8989	22028		1.08	1.0E-123	AW371924.1	EST_HUMAN	RC4-BT0311-251189-012-407 BT0311 Homo sapiens cDNA
9308	22836	36283	1.45	1.0E-123	AB007623.1	NT	Homo sapiens mRNA for KIAA0454 protein, partial cds
10036	22936	36325	41.79	1.0E-123	U09823.1	NT	Oryctolagus cuniculus New Zealand white elongation factor 1 alpha (Rabelfa2) mRNA, complete cds
12142	24982	38482	4.85	1.0E-123	BF677292.1	EST_HUMAN	S02086791F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4250879 5'
12142	24982	38483	4.85	1.0E-123	BF677292.1	EST_HUMAN	S02086791F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4250879 5'
268	13392	26286	1.1	1.0E-124	4507500	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
288	13382	26297	1.1	1.0E-124	4507500	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
284	13388		1.29	1.0E-124	D87875.1	NT	Homo sapiens DNA for amyloid precursor protein, complete cds
508	13579	28495	2.61	1.0E-124	AL163246.2	NT	Homo sapiens chromosome 21 segment HS21C048
715	13773	26692	4.04	1.0E-124	AA397551.1	EST_HUMAN	Z81504.r1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482
715	13773	26693	4.04	1.0E-124	AA397551.1	EST_HUMAN	G300482 POL-REVERSE TRANSCRIPTASE HOMOLOG (RETROVIRAL ELEMENT) ;
783	13839	26774	4.54	1.0E-124	AF155654.1	NT	Z81504.r1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482
834	13889	26826	1.15	1.0E-124	4507500	NT	G300482 POL-REVERSE TRANSCRIPTASE HOMOLOG (RETROVIRAL ELEMENT) ;
929	13981	26928	1.77	1.0E-124	7705446	NT	Human putative ribosomal protein S1 mRNA
1341	14374	27927	0.85	1.0E-124	11419082	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
1375	14407	27360	4.07	1.0E-124	AF274892.1	NT	Homo sapiens hypothetical protein (HSPC088), mRNA
							Homo sapiens ring finger protein (RNF), mRNA
							Homo sapiens glucose transporter 3 gene, exons 9, 10, and complete cds

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1376	14407	27361	4.07	1.0E-124	AF274892.1	NT	Homo sapiens glucose transporter 3 gene, exons 9, 10, and complete cds
1837	14860	27842	3.1	1.0E-124	AJ131712.1	NT	Homo sapiens mRNA for nuclear RNA-helicase (ncl181 gene)
2075	15089	28088	1.48	1.0E-124	BE878524.1	EST_HUMAN	601491716F1 NIH_MGC_60 Homo sapiens cDNA clone IMAGE:3883954 5'
2481	15483	28484	1.35	1.0E-124	AB024069.1	NT	Homo sapiens gene for B120, exon 11
3420	16462	29369	0.85	1.0E-124	4504116	NT	Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA
3549	16587	29492	1.16	1.0E-124	S78684.1	NT	Homo sapiens ATP-sensitive inwardly rectifying K-channel subunit (KCNJ6/BIR1) gene, exon
3549	16587	29493	1.15	1.0E-124	S78684.1	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
3970	16908	29884	0.87	1.0E-124	4507500	NT	Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA
4162	17183	30058	1.13	1.0E-124	4504116	NT	Homo sapiens gene for B120, exon 11
4858	17558	30722	1.09	1.0E-124	BE220437.1	EST_HUMAN	Homo sapiens fibronectin gene extra type III repeat (EDIII), exon x+1
4858	17558	30725	2.75	1.0E-124	AB024069.1	NT	Homo sapiens hypothetical protein FLJ10300 (FLJ10300), mRNA
5047	18044	31405	1.23	1.0E-124	M18178.1	NT	Homo sapiens IQ motif containing GTPase activating protein 1 (IQGAP1) mRNA
5480	18551	31405	11.08	1.0E-124	5922337	NT	Homo sapiens IQ motif containing GTPase activating protein 1 (IQGAP1) mRNA
5868	18940	32056	0.83	1.0E-124	4508786	NT	60212464F1 NIH_MGC_60 Homo sapiens cDNA clone IMAGE:4281635 5'
6104	19155	32298	6.68	1.0E-124	BF696135.1	EST_HUMAN	AV711263 Cu Homo sapiens cDNA clone CUAADF07 5'
6410	19458	32632	0.65	1.0E-124	AV711263.1	EST_HUMAN	Homo sapiens ubiquitin specific protease 8, X chromosome (Drosophila fat facets related) (USP8X), mRNA
6701	19737	32939	1.24	1.0E-124	11420654	NT	M.musculus mRNA for hoxa3 gene
7356	20351	33619	2.92	1.0E-124	Y11717.1	NT	600943771F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:2965585 5'
7497	20437	33717	1.02	1.0E-124	BE271295.1	EST_HUMAN	600943771F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:2965585 5'
7497	20437	33718	1.02	1.0E-124	BE271295.1	EST_HUMAN	ac08105.s1 Stradagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:855897 3'
7984	20905	34221	0.95	1.0E-124	AA630331.1	EST_HUMAN	Homo sapiens ribosomal protein L5 (RPL5) mRNA
8834	21754	35111	9.53	1.0E-124	4509554	NT	hg94409.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2953240 3' similar to TR:O85162
9031	21950	36319	2.2	1.0E-124	AW612105.1	EST_HUMAN	O85162 PEROXISOMAL SHORT-CHAIN ALCOHOL DEHYDROGENASE. ;
9031	21950	36320	2.2	1.0E-124	AW612109.1	EST_HUMAN	O85162 PEROXISOMAL SHORT-CHAIN ALCOHOL DEHYDROGENASE. ;
9705	22630	36008	0.57	1.0E-124	AJ798984.1	EST_HUMAN	wc43g03.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:2321428 3'
9705	22630	36009	0.57	1.0E-124	AJ798984.1	EST_HUMAN	wc43g03.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:2321428 3'
10023	22923	36311	2.8	1.0E-124	AV645633.1	EST_HUMAN	AV645633 GLC Homo sapiens cDNA clone GLCACE04 3'
10023	22923	36312	2.8	1.0E-124	AV645633.1	EST_HUMAN	AV645633 GLC Homo sapiens cDNA clone GLCACE04 3'
10107	22988	36383	0.66	1.0E-124	AF022855.1	NT	Homo sapiens cep250 centrosome associated protein mRNA, complete cds
10107	22988	36394	0.66	1.0E-124	AF022855.1	NT	Homo sapiens cep250 centrosome associated protein mRNA, complete cds
10135	23026	36422	7.36	1.0E-124	AJ767193.1	EST_HUMAN	w83f02.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2400891 3'

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
10135	23026	36423	7.35	1.0E-124	AI767133.1	EST_HUMAN	wf93f02.x1 NCL CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2400891 3'
10383	23272	36695	1.67	1.0E-124	AW503755.1	EST_HUMAN	UI-HF-BNO-akz-b-04-Q-UI-1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078848 5'
11483	24396	37846	1.49	1.0E-124	U94776.1	NT	Human muscle glycogen phosphorylase (PYGM) gene, exons 6 through 17
11777	24676	38165	3.54	1.0E-124	AW563663.1	EST_HUMAN	fj05c06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2880606 3'
11804	24004	37444	2.19	1.0E-124	AI446455.1	EST_HUMAN	fj19e03.x1 NCL CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2141980 3' similar to TR:O31662 O31662 YKRS PROTEIN.;
11804	24004	37445	2.19	1.0E-124	AI446455.1	EST_HUMAN	fj19e03.x1 NCL CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2141980 3' similar to TR:O31662 O31662 YKRS PROTEIN.;
12073	24914	38417	4.69	1.0E-124	AB032957.1	NT	Homo sapiens mRNA for KIAA1131 protein, partial cds
12383	13773	26692	5.81	1.0E-124	AA397551.1	EST_HUMAN	z181b04.r1 Stralagene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482 G300482 POL=REVERSE TRANSCRIPTASE HOMOLOG (RETROVIRAL ELEMENT);
12383	13773	26693	5.81	1.0E-124	AA397551.1	EST_HUMAN	z181b04.r1 Stralagene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482 G300482 POL=REVERSE TRANSCRIPTASE HOMOLOG (RETROVIRAL ELEMENT);
339	13429		7.35	1.0E-125	AB032988.1	NT	Homo sapiens mRNA for KIAA1172 protein, partial cds
449	13116	26002	4.78	1.0E-125	BE743922.1	EST_HUMAN	601577981F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3926685 5'
667	13729	26640	22.97	1.0E-125	AI110666.1	EST_HUMAN	HA0086 Human fetal liver cDNA library Homo sapiens cDNA
667	13729	26641	22.97	1.0E-125	AI110666.1	EST_HUMAN	HA0086 Human fetal liver cDNA library Homo sapiens cDNA
751	13808	26733	1.65	1.0E-125	AF284750.1	NT	Homo sapiens ALR-like protein mRNA, partial cds
885	13938	26885	3.65	1.0E-125	AA042813.1	EST_HUMAN	z163c07.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:486540 3' similar to gb:X65857_cds1 OLFATORY RECEPTOR-LIKE PROTEIN HGMP07E (HUMAN);
1028	14075	27015	1.06	1.0E-125	AL183210.2	NT	Homo sapiens chromosome 21 segment HS21C010
1181	14221	27158	1.2	1.0E-125	7662279	NT	Homo sapiens KIAA0744 gene product, histone deacetylase 7 (KIAA0744), mRNA
1699	15907	27693	2.01	1.0E-125	7661867	NT	Homo sapiens KIAA0022 gene product (KIAA0022), mRNA
1833	14856	27837	3.08	1.0E-125	AF015450.1	NT	Homo sapiens Usurpin-alpha mRNA, complete cds
1833	14856	27838	3.08	1.0E-125	AF015450.1	NT	Homo sapiens Usurpin-alpha mRNA, complete cds
2381	15380	28387	1.18	1.0E-125	AA011278.1	EST_HUMAN	z101g09.r1 Soares_fetal_liver_spleen_INFILS_S1 Homo sapiens cDNA clone IMAGE:429668 5'
2528	15529	28531	1.42	1.0E-125	AA042813.1	EST_HUMAN	z163c07.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:486540 3' similar to gb:X65857_cds1 OLFATORY RECEPTOR-LIKE PROTEIN HGMP07E (HUMAN);
2638	15635	28632	2.35	1.0E-125	4504696	NT	Homo sapiens inhibin, alpha (INH) mRNA
2638	15635	28633	2.35	1.0E-125	4504696	NT	Homo sapiens inhibin, alpha (INH) mRNA
3053	18398	28010	1.02	1.0E-125	BE018009.1	EST_HUMAN	b674f06.y1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3048131 5' similar to TR:O95604 O95604 ZINC FINGER PROTEIN.;
3925	16953	28837	1.32	1.0E-125	AA042813.1	EST_HUMAN	z163c07.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:486540 3' similar to gb:X65857_cds1 OLFATORY RECEPTOR-LIKE PROTEIN HGMP07E (HUMAN);

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4666	17671	30541	2.3	1.0E-125	11425114	NT	Homo sapiens zinc finger protein ZNF287 (ZNF287), mRNA
4666	17671	30542	2.3	1.0E-125	11425114	NT	Homo sapiens zinc finger protein ZNF287 (ZNF287), mRNA
4730	17735	30597	0.84	1.0E-125	BE315412.1	EST_HUMAN	60114152F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3140706 5'
5163	13261	26179	1.13	1.0E-125	BE219510.1	EST_HUMAN	h59a08.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3177986 3' similar to TR:Q25058 Q25058
5163	13261	26180	1.13	1.0E-125	BE219510.1	EST_HUMAN	h59a08.x1 NCL CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3177986 3' similar to TR:Q25058 Q25058
5965	19032	32163	0.63	1.0E-125	BE683645.1	EST_HUMAN	FIBROPEL LIN IA ;
6088	19149	32285	1.5	1.0E-125	11438448	NT	Homo sapiens KIAA0985 protein (KIAA0985), mRNA
6109	19169	32301	0.93	1.0E-125	BE175169.1	EST_HUMAN	QV2-HT0577-010500-185-b08 HT0577 Homo sapiens cDNA
6156	19214	32354	3.77	1.0E-125	BE892660.1	EST_HUMAN	601433472F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918832 5'
6203	19259	32406	0.85	1.0E-125	AI679904.1	EST_HUMAN	h67c07.x1 NCL CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2256108 3' similar to WP:C45G9.2
6534	19578	32760	0.49	1.0E-125	BE736055.1	EST_HUMAN	CE01854 ;
6863	19895	33109	2.04	1.0E-125	BE592526.1	EST_HUMAN	601305670F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3640007 5'
6863	19895	33110	2.04	1.0E-125	BE592526.1	EST_HUMAN	601335926F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3689790 5'
7415	20114	33349	8.45	1.0E-125	X03427.1	NT	601335828F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3689780 5'
7415	20114	33350	8.45	1.0E-125	X03427.1	NT	Homo sapiens IGF-II gene, exon 5
7966	20878	34189	0.87	1.0E-125	BE278823.1	EST_HUMAN	Homo sapiens IGF-II gene, exon 5
8223	21126	34459	0.4	1.0E-125	11425572	NT	601169078F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3605603 5'
8319	21224	34558	0.57	1.0E-125	BE515100.1	EST_HUMAN	Homo sapiens adaptor-related protein complex 2, beta 1 subunit (AP2B1), mRNA
9110	22038	35393	1.21	1.0E-125	U90288.1	NT	601236183F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608084 5'
9110	22038	35394	1.21	1.0E-125	U90288.1	NT	Human chromosome 10 duplicated adrenoleukodystrophy (ALD) gene segment containing exons 8-10
9662	22588	35959	8.85	1.0E-125	BE181640.1	EST_HUMAN	Human chromosome 10 duplicated adrenoleukodystrophy (ALD) gene segment containing exons 8-10
9662	22588	35960	8.85	1.0E-125	BE181640.1	EST_HUMAN	QV1-HT0638-070500-191-d12 HT0638 Homo sapiens cDNA
9919	22807	36296	1.15	1.0E-125	AI665966.1	EST_HUMAN	QV1-HT0638-070500-191-d12 HT0638 Homo sapiens cDNA
10972	23659	37283	0.85	1.0E-125	AB002288.1	NT	h52b03.x1 NCL CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2171981 3' similar to TR:Q14089 Q14089
11125	24055	37502	2.83	1.0E-125	AF043458.1	NT	HYPOTHETICAL PROTEIN ;
11210	24136	37586	1.54	1.0E-125	AW131202.1	EST_HUMAN	Human mRNA for KIAA0300 gene, partial cde
						NT	Homo sapiens IRE1 gene, exon 5
						EST_HUMAN	h56f02.x1 NCL CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2622363 3' similar to TR:Q13284 Q13284
						EST_HUMAN	LAMBDA/OTA PROTEIN KINASE C-INTERACTING PROTEIN [1];

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11210	24136	37586	1.54	1.0E-125	AW131202.1	EST_HUMAN	x55902.x1 NC1_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2622363 3' similar to TR:Q13284 Q13284
11575	24484	37952	3.89	1.0E-125	AB014567.1	NT	LAMBDA/IOTA PROTEIN KINASE C-INTERACTING PROTEIN. [1];
11734	24636	38117	1.05	1.0E-125	7669503	NT	Homo sapiens mRNA for KIAA0667 protein, partial cds
11741	24643	38123	3.42	1.0E-126	AF026029.1	NT	Homo sapiens myosin, heavy polypeptide 1, skeletal muscle, adult (MYH1), mRNA
11836	24659	38178	2.18	1.0E-125	AW812869.1	EST_HUMAN	Homo sapiens poly(A) binding protein II (PABP2) gene, complete cds
11935	24779	38274	5.43	1.0E-125	BE074267.1	EST_HUMAN	RC3-ST0186-250200-078-c11 ST0186 Homo sapiens cDNA
11935	24779	38275	5.43	1.0E-125	BE074267.1	EST_HUMAN	QV3-BT0569-020200-075-g09 BT0569 Homo sapiens cDNA
800	13855	26781	1.71	1.0E-126	4758007	NT	QV3-BT0569-020200-075-g09 BT0569 Homo sapiens cDNA
803	13858	26784	0.8	1.0E-126	M61036.1	NT	Homo sapiens CDC-like kinase (CLK) mRNA
944	13856	26936	824.83	1.0E-126	X68735.1	NT	Human laminin B1 chain gene, exon 20
2639	15636	28634	3.51	1.0E-126	6382078	NT	H. sapiens gene for alpha1-antichymotrypsin, exon 3
3120	16171	29066	10.77	1.0E-126	AA160709.1	EST_HUMAN	Homo sapiens RAN binding protein 2 (RANBP2), mRNA
3120	16171	29067	10.77	1.0E-126	AA160709.1	EST_HUMAN	z072c03.r1 Stralagene pancreas (#837208) Homo sapiens cDNA clone IMAGE:562420 5'
3121	16172	29068	0.73	1.0E-126	BF510408.1	EST_HUMAN	z072c03.r1 Stralagene pancreas (#837208) Homo sapiens cDNA clone IMAGE:562420 5'
3121	16172	29069	0.73	1.0E-126	BF510408.1	EST_HUMAN	UI-H-B14-ace-b-05-Q-UI.st NC1_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3084608 3'
3697	16729	29620	1.63	1.0E-126	X5394.1	NT	UI-H-B14-ace-b-05-Q-UI.st NC1_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3084608 3'
3723	16755	29643	2.64	1.0E-126	7667038	NT	H. sapiens DNA for liver cytochrome b5 pseudogene
4898	17898	30763	1.05	1.0E-126	AF101108.1	NT	Homo sapiens death receptor 6 (DR6), mRNA
4898	17898	30764	1.05	1.0E-126	AF101108.1	NT	Homo sapiens collagen type XI alpha-1 (COL11A1) gene, exon 63
4949	17946	30806	1.72	1.0E-126	N34078.1	EST_HUMAN	Homo sapiens collagen type XI alpha-1 (COL11A1) gene, exon 63
5901	19970	32088	0.69	1.0E-126	TC6996.1	EST_HUMAN	y078c08.r1 Soares melanocyte/2NdhM Homo sapiens cDNA clone IMAGE:267650 5'
6480	19525	32703	3.4	1.0E-126	AA460075.1	EST_HUMAN	y082b12.st1 Soares fetal liver spleen tNfLS Homo sapiens cDNA clone IMAGE:66527 3'
6543	19586	32771	3.81	1.0E-126	AB040958.1	NT	z068c03.r1 Soares total fetus Nb2HF8_9w Homo sapiens cDNA clone IMAGE:706444 5' similar to
6543	19586	32772	3.81	1.0E-126	AB040958.1	NT	TR:G1145880 G1145880 TITIN
7921	20844	34148	0.89	1.0E-126	AF287737.1	NT	Homo sapiens mRNA for KIAA1525 protein, partial cds
7921	20844	34149	0.89	1.0E-126	AF287737.1	NT	Homo sapiens mRNA for KIAA1525 protein, partial cds
8158	21063	34395	0.65	1.0E-126	AF139483.1	EST_HUMAN	Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds
8222	21127	34458	0.5	1.0E-126	AB08483.1	EST_HUMAN	Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds
8458	21389	34728	0.73	1.0E-126	AB037715.1	NT	AU136463 PLACE1 Homo sapiens cDNA clone PLACE1004326 5'
8458	21389	34729	0.73	1.0E-126	AB037715.1	NT	wf0801.x1 Soares NFL_T_GBC S1 Homo sapiens cDNA clone IMAGE:2350009 3' similar to
8567	21498	34841	2.54	1.0E-126	X16609.1	NT	SW:MPP2_HUMAN Q14168 MAGUK P65 SUBFAMILY MEMBER 2;
						NT	Homo sapiens mRNA for KIAA1294 protein, partial cds
						NT	Homo sapiens mRNA for KIAA1294 protein, partial cds
						NT	Human mRNA for ankylin (variant 2.1)

Table 4

## Single Exon Probes Expressed In Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8761	21691	35034	0.69	1.0E-126	AA483368.1	EST_HUMAN	ne74b12.s1 NCL_CGAP_Ew1 Homo sapiens cDNA clone IMAGE:909983 similar to SW:TSG6_HUMAN P98068 TUMOR NECROSIS FACTOR-INDUCIBLE PROTEIN TSG-6 PRECURSOR:
10312	23201	30010	0.51	1.0E-126	4505424	NT	Homo sapiens neuro-oncological ventral antigen 1 (NOVA1), splice variant 1, mRNA
11233	24159	37608	1.45	1.0E-126	M93198.1	NT	Human macrophage mannose receptor (MRC1) gene, exon 5
11293	24213	37662	2.12	1.0E-126	BF683176.1	EST_HUMAN	G02139138F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4298240 5'
11948	24792	38280	1.93	1.0E-126	BE261660.1	EST_HUMAN	G01149404F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3502129 5'
12818	18433	31355	6.47	1.0E-126	BE743922.1	EST_HUMAN	G01577981F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3928885 5'
182	13282	26198	1.94	1.0E-127	AB024597.1	NT	Homo sapiens mRNA for casein kinase I epsilon, complete cds
182	13282	26199	1.94	1.0E-127	AB024597.1	NT	Homo sapiens mRNA for casein kinase I epsilon, complete cds
183	13282	26198	1.37	1.0E-127	AB024597.1	NT	Homo sapiens mRNA for casein kinase I epsilon, complete cds
183	13282	26199	1.37	1.0E-127	AB024597.1	NT	Homo sapiens mRNA for casein kinase I epsilon, complete cds
293	13387	26304	1.53	1.0E-127	D87675.1	NT	Homo sapiens DNA for amyloid precursor protein, complete cds
293	13387	26305	1.53	1.0E-127	D87675.1	NT	Homo sapiens DNA for amyloid precursor protein, complete cds
909	13958	26906	1.54	1.0E-127	AF114488.1	NT	Homo sapiens intercalin short isoform (ITSN) mRNA, complete cds
941	13992	26935	0.84	1.0E-127	U72821.2	NT	Homo sapiens lost on transfection LOT1 mRNA, complete cds
1717	14745	27713	0.96	1.0E-127	4827053	NT	Homo sapiens ubiquitin specific protease 8 (USP8) mRNA
2079	15093	28091	2.05	1.0E-127	5803065	NT	Homo sapiens leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 1 (LILRA1), mRNA
2079	15093	28092	2.05	1.0E-127	5803065	NT	Homo sapiens leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 1 (LILRA1), mRNA
2215	15226	28230	7.33	1.0E-127	4506620	NT	Homo sapiens ribosomal protein L26 (RPL26) mRNA
2365	16371	28374	3.83	1.0E-127	AF245505.1	NT	Homo sapiens adiclin mRNA, complete cds
2652	16647	28647	7.24	1.0E-127	X12881.1	NT	Human mRNA for cytochrome 18
2668	15662	28661	1.03	1.0E-127	AA480131.1	EST_HUMAN	z42402.r1 Soares_tetal_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:788088 5'
2668	15662	28662	1.03	1.0E-127	AA450131.1	EST_HUMAN	z42402.r1 Soares_tetal_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:788098 5'
3765	16787	28676	0.84	1.0E-127	AF114488.1	NT	Homo sapiens intercalin short isoform (ITSN) mRNA, complete cds
3870	16908	29789	0.9	1.0E-127	AW161297.1	EST_HUMAN	al80606.y1 Schnelder fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782594 5' similar to TR-O15170 Q15170/TRANSCRIPTION FACTOR S-II-RELATED PROTEIN :contains element MER22 repetitive element :
4209	17226	30094	0.94	1.0E-127	AF135188.1	NT	Homo sapiens delayed rectifier/potassium channel subunit 1sk mRNA, complete cds
4318	17332	30195	0.75	1.0E-127	AL163247.2	NT	Homo sapiens chromosome 21 segment HS21C047
4362	17368	30229	32.28	1.0E-127	7708239	NT	Homo sapiens neuroblastoma-amplified protein (LOC51594), mRNA
4352	17366	30230	32.28	1.0E-127	7708239	NT	Homo sapiens neuroblastoma-amplified protein (LOC51594), mRNA

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4616	17624	30488	0.94	1.0E-127	AF252287.1	NT	Homo sapiens cytochrome P450 reductase protein P450RA1-2 mRNA, complete cds
4713	17718	30580	5.65	1.0E-127	4506384	NT	Homo sapiens RAD1 (S. pombe) homolog (RAD1) mRNA, and translated products
4744	17749		2.87	1.0E-127	AL163268.2	NT	Homo sapiens chromosome 21 segment HS21C068
4783	17788	30857	1.18	1.0E-127	6912639	NT	Homo sapiens Ring1 and YY1 binding protein (RYBP), mRNA
5905	18974	32092	2.27	1.0E-127	W03547.1	EST_HUMAN	zad1a10.1 Soares melanocyte 2Nblm Homo sapiens cDNA clone IMAGE:291258 5' similar to SW:PIPB_RAT P10688 1-PHOSPHATIDYLINOSITOL-4,6-BISPHOSPHATE PHOSPHODIESTERASE DELTA 1;
5939	19006	32126	0.64	1.0E-127	4826863	NT	Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA
6013	19076	32202	4.9	1.0E-127	X85764.1	NT	H. sapiens NOS2 gene, exon 6
6403	19451	32822	2.14	1.0E-127	X84060.1	NT	H. sapiens TCF11 gene, exon 3-5
6576	19817	32802	6.11	1.0E-127	4504778	NT	Homo sapiens integrin, beta 8 (ITGB8) mRNA
6952	19981	33205	0.95	1.0E-127	11421595	NT	Homo sapiens immunoglobulin superfamily, member 3 (IGSF3), mRNA
7410	20115	33351	0.81	1.0E-127	4926977	NT	Homo sapiens reelin (RELN) mRNA
8259	21164	34498	1.34	1.0E-127	11421914	NT	Homo sapiens Pendred syndrome (PDS), mRNA
8269	21164	34498	1.34	1.0E-127	11421914	NT	Homo sapiens Pendred syndrome (PDS), mRNA
8275	21160	34518	0.58	1.0E-127	BF671955.1	EST_HUMAN	602151232F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4292575 5'
8278	21183	34521	0.58	1.0E-127	AW886292.1	EST_HUMAN	QV3-BN0046-150300-121-R11 BN0046 Homo sapiens cDNA
9444	22372	35736	0.93	1.0E-127	11427235	NT	Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA
9444	22372	35737	0.93	1.0E-127	11427235	NT	Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA
10166	23057	36459	4.34	1.0E-127	AF274863.1	NT	Homo sapiens secretory pathway component Sec31B-1 mRNA, alternatively spliced, complete cds
10166	23057	36457	4.34	1.0E-127	AF274863.1	NT	Homo sapiens secretory pathway component Sec31B-1 mRNA, alternatively spliced, complete cds
10385	23274	36698	0.87	1.0E-127	AI298532.1	EST_HUMAN	cm94h09.x1 NCI CGAP Lu5 Homo sapiens cDNA clone IMAGE:1898449 3'
10831	23717	37142	1.74	1.0E-127	11427235	NT	Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA
11598	24507	37973	7.64	1.0E-127	11417339	NT	Homo sapiens similar to heat shock 70kD protein 9B (mortalin-2) (H. sapiens) (LOC63184), mRNA
11598	24507	37974	7.64	1.0E-127	11417339	NT	Homo sapiens similar to heat shock 70kD protein 9B (mortalin-2) (H. sapiens) (LOC63184), mRNA
12053	24894	38397	1.63	1.0E-127	BE895415.1	EST_HUMAN	601434784F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3919917 5'
12053	24894	38398	1.63	1.0E-127	BE895415.1	EST_HUMAN	601434784F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3919917 5'
12584	13282	26198	1.57	1.0E-127	AB024597.1	NT	Homo sapiens mRNA for casein kinase I epsilon, complete cds
12584	13282	26199	1.57	1.0E-127	AB024597.1	NT	Homo sapiens mRNA for casein kinase I epsilon, complete cds
12775	25404	31812	1.93	1.0E-127	AB011399.1	NT	Homo sapiens gene for AF-6, complete cds
13076	25840		2.03	1.0E-127	AB011399.1	NT	Homo sapiens gene for AF-6, complete cds
482	13553	26470	1.88	1.0E-128	BE385617.1	EST_HUMAN	601278127F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3918822 5'



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Table 4

## Single Exon Probes Expressed In Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2084	15098	28096	8.75	1.0E-128	U02523.1	NT	Human FAU1P pseudogene, trinucleotide repeat regions
2084	15098	28097	8.75	1.0E-128	U02523.1	NT	Human FAU1P pseudogene, trinucleotide repeat regions
2224	15234	28241	24.08	1.0E-128	4508718	NT	Homo sapiens ribosomal protein S2 (RPS2) mRNA
2469	15472		1.68	1.0E-128	11437455	NT	Homo sapiens chromatin-specific transcription elongation factor, 140 kDa subunit (FACTP140), mRNA
3453	16494	29398	1.14	1.0E-128	AB033073.1	NT	Homo sapiens mRNA for KIAA1247 protein, partial cds
4776	17781	30851	5.39	1.0E-128	11426673	NT	Homo sapiens prospero-related homeobox 1 (PROX1), mRNA
5736	18809	31903	14.94	1.0E-128	X69539.1	NT	H. sapiens gene for inter-alpha-trypsin inhibitor heavy chain H1, exon 12
6885	19721	32921	1.7	1.0E-128	11420965	NT	Homo sapiens phosphodiesterase 1C, calmodulin-dependent (70kD) (PDE1C), mRNA
7280	20169	33409	6.72	1.0E-128	BF224345.1	EST_HUMAN	7q86b10.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3905794 5'
7831	20760	34084	0.45	1.0E-128	BE614105.1	EST_HUMAN	601503846F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3905794 5'
8175	21082	34412	0.58	1.0E-128	BF528931.1	EST_HUMAN	602042322F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4179888 5'
8175	21082	34413	0.58	1.0E-128	BF528931.1	EST_HUMAN	602042322F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4179888 5'
8176	21082	34414	0.58	1.0E-128	BF528931.1	EST_HUMAN	602042322F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4179888 5'
8279	21184	34522	0.67	1.0E-128	11545923	NT	Homo sapiens putative ABC transporter (WHITE2), mRNA
9112	22040	35396	0.63	1.0E-128	AB007923.1	NT	Homo sapiens mRNA for KIAA0454 protein, partial cds
9112	22040	35397	0.63	1.0E-128	AB007923.1	NT	Homo sapiens mRNA for KIAA0454 protein, partial cds
10636	23522	36957	0.77	1.0E-128	AA639198.1	EST_HUMAN	ns04a1.1 NCI_CGAP_Ew1 Homo sapiens cDNA clone IMAGE:1182620 similar to TR:G951338 G951338 CHROMOSOME SEGREGATION GENE HOMOLOG CAS.:
11162	24081	37528	3.21	1.0E-128	11425254	NT	Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2D (GRIN2D), mRNA
11160	24088	37535	3.77	1.0E-128	AA926959.1	EST_HUMAN	om68h08.s1 NCI_CGAP_GC4 Homo sapiens cDNA clone IMAGE:1552383 3' similar to gb:X64841 CYCLIN-DEPENDENT KINASES REGULATORY SUBUNIT 1 (HUMAN);
11405	24321	37770	4.38	1.0E-128	BE887554.1	EST_HUMAN	601511912F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913371 5'
12464	25211		3.61	1.0E-128	AW955290.1	EST_HUMAN	EST367360 IMAGE resequences, MAGC Homo sapiens cDNA
128	13507	28433	8.32	1.0E-128	S37722.1	NT	insulin-like growth factor binding protein-2 [human, placenta, Genomic, 1019 nt, segment 2 of 4]
436	13507	28433	10.42	1.0E-128	S37722.1	NT	insulin-like growth factor binding protein-2 [human, placenta, Genomic, 1019 nt, segment 2 of 4]
1747	14774	27743	2.72	1.0E-128	AL086880.1	NT	Novel human mRNA containing Zinc finger C2H2 type domains
1752	14779	27746	1.49	1.0E-128	AF240786.1	NT	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds
1762	14779	27749	1.49	1.0E-128	AF240786.1	NT	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds
1871	14892	27873	2.39	1.0E-128	11418522	NT	Homo sapiens zinc finger protein 76 (expressed in testis) (ZNF76), mRNA
2828	15817	28811	1.03	1.0E-128	4505682	NT	Homo sapiens platelet-derived growth factor receptor, beta polypeptide (PDGFRB) mRNA
2828	15817	28812	1.03	1.0E-128	4505682	NT	Homo sapiens platelet-derived growth factor receptor, beta polypeptide (PDGFRB) mRNA

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3173	16223	29114	0.96	1.0E-129	Q14585	SWISSPROT	ZINC FINGER PROTEIN HZF10
3173	16223	29115	0.96	1.0E-129	Q14585	SWISSPROT	ZINC FINGER PROTEIN HZF10
3173	16223	29116	0.96	1.0E-129	Q14585	SWISSPROT	ZINC FINGER PROTEIN HZF10
4229	17245	30113	1.03	1.0E-129	5032230	NT	Homo sapiens A kinase (PRKA) anchor protein 9 (AKAP9), mRNA
4229	17245	30114	1.03	1.0E-129	5032230	NT	Homo sapiens A kinase (PRKA) anchor protein 9 (AKAP9), mRNA
4261	17277	30146	2.06	1.0E-129	AB040892.1	NT	Homo sapiens mRNA for KIAA1459 protein, partial cds
4379	17393	30257	2.26	1.0E-129	AW755264.1	EST_HUMAN	CMYA5 Human cardiac muscle expression library Homo sapiens cDNA clone 4151935 similar to CMYA5 Cardiomyopathy associated gene 5
4379	17393	30258	2.26	1.0E-129	AW755264.1	EST_HUMAN	CMYA5 Human cardiac muscle expression library Homo sapiens cDNA clone 4151935 similar to CMYA5 Cardiomyopathy associated gene 5
6328	19378	32545	4.83	1.0E-129	AJ006345.1	NT	Homo sapiens KVLQT1 gene
6803	19836	33047	0.44	1.0E-129	BE888934.1	EST_HUMAN	601513861F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3915350 5'
7244	20153	33392	0.41	1.0E-129	BE889993.1	EST_HUMAN	601449740F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3853688 5'
7244	20153	33393	0.41	1.0E-129	BE889993.1	EST_HUMAN	601449740F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3853688 5'
7487	20427	33707	4.11	1.0E-129	AJ006345.1	NT	Homo sapiens KVLQT1 gene
7554	20491	33780	16.7	1.0E-129	11420850	NT	Homo sapiens similar to ribosomal protein S28 (H. sapiens) (LOC63694), mRNA
7952	20874	34184	0.8	1.0E-129	AFO41056.1	NT	Homo sapiens WSCR4 gene, exons 3 and 4
7952	20874	34186	0.8	1.0E-129	AFO41056.1	NT	Homo sapiens WSCR4 gene, exons 3 and 4
8893	21823		4.44	1.0E-129	AB014534.1	NT	Homo sapiens mRNA for KIAA0634 protein, partial cds
10581	23407	36892	0.96	1.0E-129	11437282	NT	Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA
10581	23407	36893	0.96	1.0E-129	11437282	NT	Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA
10990	23874	37302	0.6	1.0E-129	AI199117.1	EST_HUMAN	q140008.x1 NCLCGAP_Brn25 Homo sapiens cDNA clone IMAGE:1858959 3' similar to TR:Q14840 Q14840 MITOGEN INDUCIBLE GENE MIG-2
10990	23874	37303	0.6	1.0E-129	AI199117.1	EST_HUMAN	q140008.x1 NCLCGAP_Brn25 Homo sapiens cDNA clone IMAGE:1858959 3' similar to TR:Q14840 Q14840 MITOGEN INDUCIBLE GENE MIG-2
11672	24576	38052	3.2	1.0E-129	AA625528.1	EST_HUMAN	ef7207.r1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:1047589 5'
11744	20491	33780	3.74	1.0E-129	11420850	NT	Homo sapiens similar to ribosomal protein S28 (H. sapiens) (LOC63694), mRNA
12452	25202		3.06	1.0E-129	H83155.1	EST_HUMAN	yq49c05.r1 Soares fetal liver spleen INFLS Homo sapiens cDNA clone IMAGE:189112 5' similar to SP:B48150 B48150 HP-28=HIBERNATION-RELATED PROTEIN - TAMIAS ASIATICUS=ASIAN ;
12809	25431		1.81	1.0E-129	AL120739.1	EST_HUMAN	DKFZp762K171_r1 782 (synonym: hmel2) Homo sapiens cDNA clone DKFZp762K171 5'
1198	13193	26105	1.26	1.0E-130	7705530	NT	Homo sapiens hypophyseal protein (HSPC242), mRNA
1198	14237	27177	0.79	1.0E-130	AB037835.1	NT	Homo sapiens mRNA for KIAA1414 protein, partial cds
1693	14723	27687	6.94	1.0E-130	BE275192.1	EST_HUMAN	601121995F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3346366 5'
1693	14723	27688	6.94	1.0E-130	BE275192.1	EST_HUMAN	601121995F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3346366 5'

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2000	15018		2.8	1.0E-130	X04092.1	NT	Human gene for cathepsin (EC 1.11.1.6) exon 9 mapping to chromosome 11, band p13
2821	15810		7.65	1.0E-130	AJ010230.1	NT	Homo sapiens RET finger protein-like 1 antisense transcript, partial
2921	15974	28871	1.39	1.0E-130	BE564219.1	EST_HUMAN	601343016F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3685466 5'
2921	15974	28872	1.39	1.0E-130	BE564219.1	EST_HUMAN	601343016F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3685466 5'
3638	16674	29572	0.87	1.0E-130	AF240698.1	NT	Homo sapiens retinol dehydrogenase homolog isoform-1 (RDH) mRNA, complete cds
3832	15974	28871	6.64	1.0E-130	BE564219.1	EST_HUMAN	601343016F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3685466 5'
3832	15974	28872	6.64	1.0E-130	BE564219.1	EST_HUMAN	601343016F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3685466 5'
4012	17039	28928	1.92	1.0E-130	AW503580.1	EST_HUMAN	U1HF-BNO-aky-g-08-0-U1F1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078731 5'
4654	17660	30527	10.78	1.0E-130	AW843993.1	EST_HUMAN	GM4-CN0045-180200-511-02 CN0045 Homo sapiens cDNA
5233	18221	31069	1.32	1.0E-130	AW363299.1	EST_HUMAN	RC0-CT0318-201199-031-a11 CT0318 Homo sapiens cDNA
5233	18221	31070	1.32	1.0E-130	AW363299.1	EST_HUMAN	RC0-CT0318-201199-031-a11 CT0318 Homo sapiens cDNA
7031	20057	33290	0.58	1.0E-130	X57825.1	NT	Human germ-line immunoglobulin lambda light chain pseudogene (Vil.1)
7133	20241	33481	0.85	1.0E-130	AW843875.1	EST_HUMAN	GM0-CN0045-170200-225-g03 CN0045 Homo sapiens cDNA
7133	20241	33492	0.85	1.0E-130	AW843875.1	EST_HUMAN	GM0-CN0045-170200-225-g03 CN0045 Homo sapiens cDNA
7149	20257	33510	0.76	1.0E-130	11425446	NT	Homo sapiens estrogen-responsive B box protein (EBBP), mRNA
7625	20560	33853	1.78	1.0E-130	11416777	NT	Homo sapiens solute carrier family 6 (neurotransmitter transporter, L-proline), member 7 (SLC6A7), mRNA
7739	20670	33967	0.57	1.0E-130	AF257737.1	NT	Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds
7739	20670	33968	0.57	1.0E-130	AF257737.1	NT	Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds
9240	22168		0.51	1.0E-130	AF008551.1	NT	Homo sapiens aurora-related kinase 1 (ARK1) mRNA, complete cds
9378	22306	35667	2.77	1.0E-130	AW958242.1	EST_HUMAN	EST368312 MAGE resequenced, MAGD Homo sapiens cDNA
9755	22679	36064	1.62	1.0E-130	AB037756.1	NT	Homo sapiens mRNA for KIAA1335 protein, partial cds
10442	23331		0.72	1.0E-130	AW103454.1	EST_HUMAN	xd38606.x1 NCI_CGAP_OY23 Homo sapiens cDNA clone IMAGE:2595874 3'
11719	24621	38099	1.77	1.0E-130	8923197	NT	Homo sapiens hypothetical protein FLJ20208 (FLJ20208), mRNA
11719	24621	38100	1.77	1.0E-130	8923197	NT	Homo sapiens hypothetical protein FLJ20208 (FLJ20208), mRNA
12127	24868	38472	1.7	1.0E-130	4504142	NT	Homo sapiens glutamate receptor, metabotropic 5 (GRM5) mRNA
4	13120	26006	1.82	0.0E+00	AA228126.1	EST_HUMAN	zr58c04.r1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:667590 5' similar to TR:G222811
4	13120	26007	1.82	0.0E+00	AA228126.1	EST_HUMAN	zr58c04.r1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:667590 5' similar to TR:G222811
8	13123	26011	1.44	0.0E+00	4885136	NT	G222811 ALPHA 1 CHAIN OF TYPE XI COLLAGEN. ;
16	13131	26017	3.89	0.0E+00	8923349	NT	Homo sapiens checkpoint suppressor 1 (CHES1), mRNA
16	13131	26018	3.89	0.0E+00	8923349	NT	Homo sapiens hypothetical protein FLJ20371 (FLJ20371), mRNA
22	13138	26025	2.95	0.0E+00	D83327.1	NT	Homo sapiens hypothetical protein FLJ20371 (FLJ20371), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E- Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
22	13138	26026	2.96	0.0E+00	D83327.1	NT	Homo sapiens DORR1 mRNA, partial cds
28	13144	26031	15.23	0.0E+00	AF141349.1	NT	Homo sapiens beta-tubulin mRNA, complete cds
38	13152	26041	0.91	0.0E+00	5802997	NT	Homo sapiens Cdc42 effector protein 2 (CEP2), mRNA
38	13154	26044	15.3	0.0E+00	M58600.1	NT	Human heparin cofactor II (HCF2) gene, exons 1 through 5
41	13157	26048	4.2	0.0E+00	M58600.1	NT	Human heparin cofactor II (HCF2) gene, exons 1 through 5
43	13159	26050	1.94	0.0E+00	6857825	NT	Homo sapiens RNA-binding protein S1, serine-rich domain (RNPS1), mRNA
80	13176	26077	18.82	0.0E+00	Y17151.2	NT	Homo sapiens mRNA for multidrug resistance protein 3 (ABCC3)
60	13176	26078	18.82	0.0E+00	Y17151.2	NT	Homo sapiens mRNA for multidrug resistance protein 3 (ABCC3)
62	13178	26082	1.16	0.0E+00	D78904.1	EST_HUMAN	HUM516H088 Human placenta polyA+ (TFujivara) Homo sapiens cDNA clone GEN-516H08 5'
62	13178	26083	1.16	0.0E+00	D78904.1	EST_HUMAN	HUM516H088 Human placenta polyA+ (TFujivara) Homo sapiens cDNA clone GEN-516H08 5'
63	13179	26084	10.74	0.0E+00	L16558.1	NT	Human ribosomal protein L7 (RPL7) mRNA, complete cds
65	13181	26087	9.6	0.0E+00	AW069534.1	EST_HUMAN	cr48e07.x1 Jia bone marrow stroma Homo sapiens cDNA clone HBMSC_cr48e07 3'
65	13181	26088	9.6	0.0E+00	AW069534.1	EST_HUMAN	cr48e07.x1 Jia bone marrow stroma Homo sapiens cDNA clone HBMSC_cr48e07 3'
69	13184	26092	0.8	0.0E+00	M60676.1	NT	Human von Willebrand factor pseudogene corresponding to exons 23 through 34
70	13185		0.67	0.0E+00	M60676.1	NT	Human von Willebrand factor pseudogene corresponding to exons 23 through 34
78	13192	26103	5.5	0.0E+00	4758977	NT	Homo sapiens protein tyrosine phosphatase, non-receptor type substrate 1 (PTPNS1) mRNA
78	13192	26104	5.5	0.0E+00	4758977	NT	Homo sapiens protein tyrosine phosphatase, non-receptor type substrate 1 (PTPNS1) mRNA
81	13192	26103	3.7	0.0E+00	4758977	NT	Homo sapiens protein tyrosine phosphatase, non-receptor type substrate 1 (PTPNS1) mRNA
81	13192	26104	3.7	0.0E+00	4758977	NT	Homo sapiens protein tyrosine phosphatase, non-receptor type substrate 1 (PTPNS1) mRNA
							Homo sapiens amiloride binding protein 1 (amilofidase (copper-containing)) (ABP1), nuclear gene encoding mitochondrial protein, mRNA
84	13197	26110	1.49	0.0E+00	4501850	NT	Homo sapiens heterogenous nuclear ribonucleoprotein A1 (HNRPA1) mRNA
85	13198		6.01	0.0E+00	4504444	NT	Homo sapiens actin, beta (ACTB) mRNA
94	13207	26119	27.76	0.0E+00	5016088	NT	Homo sapiens actin, beta (ACTB) mRNA
97	13210	26122	14.89	0.0E+00	U89277.1	NT	Human polyhomeotic 1 homolog (HPH1) mRNA, partial cds
104	13217	26129	2.13	0.0E+00	AI114743.1	EST_HUMAN	HA1347 Human fetal liver cDNA library Homo sapiens cDNA
105	13218	26130	0.82	0.0E+00	AB037784.1	NT	Homo sapiens mRNA for KIAA1383 protein, partial cds
111	13221	26134	0.69	0.0E+00	X61213.1	NT	H. sapiens ncx1 gene (exon 2)
120	13228	26140	1.42	0.0E+00	AB23701.1	EST_HUMAN	ts38805.x1 NCL CGAP U14 Homo sapiens cDNA clone IMAGE:2230833 3' similar to TR:Q99551 Q99551 MITOCHONDRIAL TRANSCRIPTION TERMINATION FACTOR PRECURSOR ;
121	13228	26140	1.54	0.0E+00	AB23701.1	EST_HUMAN	ts38805.x1 NCL CGAP U14 Homo sapiens cDNA clone IMAGE:2230833 3' similar to TR:Q99551 Q99551 MITOCHONDRIAL TRANSCRIPTION TERMINATION FACTOR PRECURSOR ;
122	15841	26141	2.41	0.0E+00	N36040.1	EST_HUMAN	yo1109.r1 Soares melanocyte 2NbrHM Homo sapiens cDNA clone IMAGE:270017 5'
122	15841	26142	2.41	0.0E+00	N36040.1	EST_HUMAN	yo1109.r1 Soares melanocyte 2NbrHM Homo sapiens cDNA clone IMAGE:270017 5'
125	13231	26147	0.76	0.0E+00	4505458	NT	Homo sapiens neurophilin 2 (NRP2) mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
135	13237	26155	3.59	0.0E+00	4505938	NT	Homo sapiens polymerase (RNA) II (DNA directed) polypeptide A (220kD) (POLR2A) mRNA
135	13237	26156	3.59	0.0E+00	4505938	NT	Homo sapiens polymerase (RNA) II (DNA directed) polypeptide A (220kD) (POLR2A) mRNA
143	13495	26417	0.65	0.0E+00	4903680	NT	Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA.
145	13245	26163	1.04	0.0E+00	T56945.1	EST_HUMAN	ya83g04.12 Stralagene fetal spleen (#937205) Homo sapiens cDNA clone IMAGE:58310 5'
145	13245	26164	1.04	0.0E+00	T56945.1	EST_HUMAN	ya83g04.12 Stralagene fetal spleen (#937205) Homo sapiens cDNA clone IMAGE:58310 5'
163	13264		6.67	0.0E+00	4504444	NT	Homo sapiens heterogenous nuclear ribonucleoprotein A1 (HNRPA1) mRNA
167	13268	26185	1.19	0.0E+00	BF036881.1	EST_HUMAN	G01460375F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3893803 5'
169	13270		15.62	0.0E+00	4504444	NT	Homo sapiens heterogenous nuclear ribonucleoprotein A1 (HNRPA1) mRNA
172	13273	26188	0.93	0.0E+00	AF111168.2	NT	Homo sapiens serine palmitoyl transferase, subunit II gene, complete cds; and unknown genes
174	13275	26189	1.38	0.0E+00	BE295973.1	EST_HUMAN	G01174270F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3529864 5'
175	13275	26189	0.88	0.0E+00	BE295973.1	EST_HUMAN	G01174270F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3529864 5'
176	13276	26190	2.33	0.0E+00	W73973.1	EST_HUMAN	z82605.1 Soares_fetal_heart_NHH19W Homo sapiens cDNA clone IMAGE:345201 5' similar to gb:X16292_cds1 ZING FINGER PROTEIN CLONE 647 (HUMAN);
177	13277	26191	1.25	0.0E+00	BE162832.1	EST_HUMAN	QV3-HT0457-140200-088-d04 HT0457 Homo sapiens cDNA
177	13277	26192	1.25	0.0E+00	BE162832.1	EST_HUMAN	QV3-HT0457-140200-088-d04 HT0457 Homo sapiens cDNA
178	13278	26193	1.58	0.0E+00	AF244088.1	NT	Homo sapiens zinc finger protein mRNA, complete cds
181	13281	26196	8.26	0.0E+00	AL163202.2	NT	Homo sapiens chromosome 21 segment HS21C002
181	13281	26197	8.26	0.0E+00	AL163202.2	NT	Homo sapiens chromosome 21 segment HS21C002
192	13290	26204	2.89	0.0E+00	BE018970.1	EST_HUMAN	bb24612.y1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:2993854 5' similar to WP:Y57A10A.Z
192	13290	26204	2.89	0.0E+00	BE018970.1	EST_HUMAN	bb24612.y1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:2993854 5' similar to WP:Y57A10A.Z
197	13295	26208	2.25	0.0E+00	AB018327.1	NT	Homo sapiens mRNA for KIAA0784 protein, partial cds
197	13295	26209	2.25	0.0E+00	AB018327.1	NT	Homo sapiens mRNA for KIAA0784 protein, partial cds
198	13296	26210	1.42	0.0E+00	AB018327.1	NT	Homo sapiens mRNA for KIAA0784 protein, partial cds
198	13296	26211	1.42	0.0E+00	AB018327.1	NT	Homo sapiens mRNA for KIAA0784 protein, partial cds
207	13306	26223	8.46	0.0E+00	D50659.1	NT	Human gamma-cytoplasmic actin (ACTGP9) pseudogene
212	13311	26228	2.96	0.0E+00	AF273045.1	NT	Homo sapiens CTCL tumor antigen set14-3 mRNA, complete cds
212	13311	26229	2.96	0.0E+00	AF273045.1	NT	Homo sapiens CTCL tumor antigen set14-3 mRNA, complete cds
214	13313	26231	4.87	0.0E+00	AF167174.1	NT	Homo sapiens chromosome X MSL3-2 protein mRNA, complete cds
214	13313	26232	4.87	0.0E+00	AF167174.1	NT	Homo sapiens chromosome X MSL3-2 protein mRNA, complete cds
224	15669	26239	20.98	0.0E+00	AI587308.1	EST_HUMAN	tg04f08.x1 NCI_CGAP_U13 Homo sapiens cDNA clone IMAGE:2207847 3' similar to gb:J03191 PROFILIN1 (HUMAN);

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
224	13869	26240	20.98	0.0E+00	AI587308.1	EST_HUMAN	ta0408.x1 NC1_CGAP_U13 Homo sapiens cDNA clone IMAGE:2207847 3' similar to gb:J03101 PROFILIN 1 (HUMAN);
226	13324	26242	1.61	0.0E+00	AF105658.1	NT	Homo sapiens DNA mismatch repair protein (MLH3) gene, complete cds
230	13328		20.4	0.0E+00	4606632	NT	Homo sapiens ribosomal protein L31 (RPL31) mRNA
231	13329		6.63	0.0E+00	AF132000.1	NT	Homo sapiens TADA1 protein mRNA, complete cds
238	13336	26250	1.92	0.0E+00	AB018294.1	NT	Homo sapiens mRNA for KIAA0721 protein, partial cds
239	13336	26250	1.45	0.0E+00	AB018294.1	NT	Homo sapiens mRNA for KIAA0721 protein, partial cds
240	13337	26251	2.47	0.0E+00	6678444	NT	Mus musculus testis-specific protein, Y-encoded-like (Tspy), mRNA
254	13362	26286	0.93	0.0E+00	AB018301.1	NT	Homo sapiens mRNA for KIAA0758 protein, partial cds
264	13362	26286	0.93	0.0E+00	AB018301.1	NT	Homo sapiens mRNA for KIAA0758 protein, partial cds
257	13354	26270	7.47	0.0E+00	5453905	NT	Homo sapiens NS1-associated protein 1 (NSAP1) mRNA
259	13356		3.05	0.0E+00	AL183201.2	NT	Homo sapiens chromosome 21 segment HS21C001
266	13361	26276	3.24	0.0E+00	AF231919.1	NT	Homo sapiens chromosome 21 unknown mRNA
268	13363	26279	1.65	0.0E+00	X89772.1	NT	H. sapiens mRNA for Interferon alpha/beta receptor (long form).
276	13371		6.8	0.0E+00	AF231918.1	NT	Homo sapiens chromosome 21 unknown mRNA
289	13383	26298	1.29	0.0E+00	4507500	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
289	13383	26299	1.29	0.0E+00	4507500	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
291	13385	26301	2.17	0.0E+00	7706028	NT	Homo sapiens hypothetical protein (LOC51250), mRNA
302	13395	26314	1.41	0.0E+00	D83327.1	NT	Homo sapiens DCORR1 mRNA, partial cds
303	13396	26314	2.24	0.0E+00	D83327.1	NT	Homo sapiens DCORR1 mRNA, partial cds
303	13396	26315	2.24	0.0E+00	D83327.1	NT	Homo sapiens DCORR1 mRNA, partial cds
304	13397		1.1	0.0E+00	AW845293.1	EST_HUMAN	IL2-CT0031-181199-020-B03 CT0031 Homo sapiens cDNA
313	13405	26322	5.67	0.0E+00	4557029	NT	Homo sapiens potassium inwardly-rectifying channel, subfamily J, member 15 (KCNJ15) mRNA
313	13405	26323	5.67	0.0E+00	4557029	NT	Homo sapiens potassium inwardly-rectifying channel, subfamily J, member 15 (KCNJ15) mRNA
324	13416	26333	3.1	0.0E+00	AB028942.1	NT	Homo sapiens mRNA for KIAA1019 protein, partial cds
325	13417	26334	3.07	0.0E+00	AB028942.1	NT	Homo sapiens mRNA for KIAA1019 protein, partial cds
326	13872		13.21	0.0E+00	4508728	NT	Homo sapiens ribosomal protein S6 (RPS6) mRNA
327	13418	26335	0.76	0.0E+00	4503914	NT	Homo sapiens phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide synthetase, zyt8c06.r1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:753894 5'
328	13419		1.62	0.0E+00	AA480002.1	EST_HUMAN	
329	13420	26336	12.99	0.0E+00	4507152	NT	Homo sapiens SON DNA binding protein (SON) mRNA
330	13420	26336	10.02	0.0E+00	4507152	NT	Homo sapiens SON DNA binding protein (SON) mRNA
334	13424	26340	2.68	0.0E+00	AF114498.1	NT	Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds
347	13436	26349	0.7	0.0E+00	Q14867	SWISSPROT	TRANSCRIPTION REGULATOR PROTEIN BACH1 (BTB AND CNC HOMOLOG 1) (HA2303)

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
347	13436	26350	0.7	0.0E+00	014887	SWISSPROT	TRANSCRIPTION REGULATOR PROTEIN BACH1 (BTB AND CNC HOMOLOG 1) (HA2303)
348	13437	26351	3.25	0.0E+00	7657213	NT	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA
349	13437	26351	2.03	0.0E+00	7657213	NT	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA
384	13451	26363	3.4	0.0E+00	5174574	NT	Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLL14) mRNA
365	13452	26364	0.71	0.0E+00	4505256	NT	Homo sapiens moesin (MSN), mRNA
368	13455	26368	24.99	0.0E+00	4827057	NT	Homo sapiens X-box binding protein 1 (XBP1) mRNA
371	13458	26373	1.13	0.0E+00	U71600.1	NT	Human zinc finger protein zfp31 (zfp31) mRNA, partial cds
376	13462	26377	2.49	0.0E+00	AF231919.1	NT	Homo sapiens chromosome 21 unknown mRNA
378	13462	26378	2.49	0.0E+00	AF231919.1	NT	Homo sapiens chromosome 21 unknown mRNA
377	15873	26379	2.61	0.0E+00	AF231919.1	NT	Homo sapiens chromosome 21 unknown mRNA
379	13464	26381	0.89	0.0E+00	4507500	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
382	13467	26385	1.32	0.0E+00	4503854	NT	Homo sapiens GA-binding protein transcription factor, alpha subunit (60kD) (GABPA), mRNA
383	13468	26386	1.35	0.0E+00	D80006.1	NT	Human mRNA for KIAA0184 gene, partial cds
384	13468	26386	1.04	0.0E+00	D80006.1	NT	Human mRNA for KIAA0184 gene, partial cds
386	13470	26388	0.73	0.0E+00	4507500	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
397	13478	26396	1.4	0.0E+00	AU134963.1	EST_HUMAN	AU134953 PLACE1 Homo sapiens cDNA clone PLACE1000899 5'
408	13521	26443	5.23	0.0E+00	AB028942.1	NT	Homo sapiens mRNA for KIAA1019 protein, partial cds
409	13522	26444	1.49	0.0E+00	AJ363014.1	EST_HUMAN	qy61h05.x1 NCL CGAP_Bm25; Homo sapiens cDNA clone IMAGE:2018467 3' similar to gb:X64189
414	13487	26406	1.89	0.0E+00	AW754180.1	EST_HUMAN	PHOSPHORIBOSYLAMINE--GLYCINE LIGASE (HUMAN);
417	13489	26409	1.34	0.0E+00	4503680	NT	RC2-CT0320-300100-016-a09 CT0320 Homo sapiens cDNA
418	13490	26410	2.22	0.0E+00	4503680	NT	Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA
418	13490	26411	2.22	0.0E+00	4503680	NT	Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA
419	13461	26412	1.39	0.0E+00	4503680	NT	Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA
420	13492	26413	1.41	0.0E+00	4503680	NT	Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA
420	13492	26414	1.41	0.0E+00	4503680	NT	Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA
421	13493	26415	0.71	0.0E+00	4503680	NT	Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA
422	13494	26416	2.6	0.0E+00	4503680	NT	Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA
423	13495	26417	1.12	0.0E+00	4503680	NT	Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA
424	13496	26418	1.36	0.0E+00	X74870.1	NT	H. sapiens gene for RNA pd II largest subunit, exons 23-29
424	13496	26419	1.36	0.0E+00	X74870.1	NT	H. sapiens gene for RNA pd II largest subunit, exons 23-29
425	13496	26418	1.14	0.0E+00	X74870.1	NT	H. sapiens gene for RNA pd II largest subunit, exons 23-29
425	13496	26419	1.14	0.0E+00	X74870.1	NT	H. sapiens gene for RNA pd II largest subunit, exons 23-29

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
429	13500		36.83	0.0E+00	4506608	NT	Homo sapiens ribosomal protein L19 (RPL19) mRNA
443	13110	25998	1.01	0.0E+00	R17795.1	EST_HUMAN	Y909a02.1 Soares infant brain 1N1B Homo sapiens cDNA clone IMAGE:31652 5'
451	13523	26445	0.85	0.0E+00	4503914	NT	Homo sapiens phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide synthetase,
452	13524						phosphoribosylimidazole synthetase (GART) mRNA
453	13525	26446	8.84	0.0E+00	4506728	NT	Homo sapiens ribosomal protein S5 (RPS5) mRNA
454	13526	26447	2.7	0.0E+00	AB028942.1	NT	Homo sapiens mRNA for KIAA1019 protein, partial cds
454	13526	26448	3.19	0.0E+00	4507152	NT	Homo sapiens SON DNA binding protein (SON) mRNA
455	13527	26449	3.19	0.0E+00	4507152	NT	Homo sapiens SON DNA binding protein (SON) mRNA
458	13539	26462	2.23	0.0E+00	AF193607.1	NT	Mus musculus truncated SON protein (Son) mRNA, complete cds
473	13544		3.81	0.0E+00	4557879	NT	Homo sapiens interferon gamma receptor 1 (IFNGR1) mRNA
474	13545		0.91	0.0E+00	AA324262.1	EST_HUMAN	EST27054 Cerebellum II Homo sapiens cDNA 5' end
490	13561	26476	1.1	0.0E+00	BE264447.1	EST_HUMAN	601111520F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352348 5'
490	13561	26477	4.19	0.0E+00	4504532	NT	Homo sapiens 6-hydroxytryptamine (serotonin) receptor 1B (HTR1B) mRNA
496	13566	26485	4.19	0.0E+00	4557887	NT	Homo sapiens 5-hydroxytryptamine (serotonin) receptor 1B (HTR1B) mRNA
496	13566	26488	14.93	0.0E+00	4557887	NT	Homo sapiens keratin 18 (KRT18) mRNA
506	13577	26492	2.13	0.0E+00	AL163246.2	NT	Homo sapiens keratin 18 (KRT18) mRNA
507	13578	26493	6.89	0.0E+00	AL163246.2	NT	Homo sapiens chromosome 21 segment HS21C046
516	13595	26499	5.84	0.0E+00	AB033035.1	NT	Homo sapiens chromosome 21 segment HS21C046
518	13593	26501	1.62	0.0E+00	AU132898.1	EST_HUMAN	Homo sapiens mRNA for KIAA1209 protein, partial cds
526	13593	26507	3.06	0.0E+00	BE386144.1	EST_HUMAN	AU132898 NT2RP4 Homo sapiens cDNA clone NT2RP4000837 5'
527	13579	26508	1.89	0.0E+00	AW939825.1	EST_HUMAN	601274951F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3615768 5'
530	13593	26510	1.36	0.0E+00	AL117233.1	NT	PMO-DT0065-130400-002-c06 DT0065 Homo sapiens cDNA
531	13600	26511	1.18	0.0E+00	8923956	NT	Novel human gene mapping to chromosome 1
535	13604		0.81	0.0E+00	BF373403.1	EST_HUMAN	Homo sapiens PC326 protein (PC326), mRNA
542	13611	26521	6.84	0.0E+00	AL163210.2	NT	Homo sapiens chromosome 21 segment HS21C010
549	13677	26526	1.01	0.0E+00	BE081527.1	EST_HUMAN	QV2-BT0635-160400-142-H05 BT0635 Homo sapiens cDNA
554	13623	26531	1.5	0.0E+00	BF028005.1	EST_HUMAN	601764858F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3996998 5'
560	13623	26538	0.84	0.0E+00	AB040909.1	NT	Homo sapiens mRNA for KIAA1476 protein, partial cds
563	13632	26541	7.91	0.0E+00	6005030	NT	Homo sapiens transcription elongation factor B (SIII), polypeptide 1-like (TCEB1L) mRNA
564	13633	26542	3.95	0.0E+00	4504036	NT	Homo sapiens guanine nucleotide binding protein (G protein), alpha 11 (Gq class) (GNAT1) mRNA
584	13633	26543	3.95	0.0E+00	4504036	NT	Homo sapiens guanine nucleotide binding protein (G protein), alpha 11 (Gq class) (GNAT1) mRNA



Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
570	13638		3.94	0.0E+00	AF003528.1	NT	Homo sapiens X-linked arylidrolid ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions
578	13646	26553	1.36	0.0E+00	AW135324.1	EST_HUMAN	U-H-B11-ecb-h-04-0-U1.s1 NCL_GGAP_Sub3 Homo sapiens cDNA clone IMAGE:2713951 3'
588	13658		5.37	0.0E+00	D10093.1	NT	Homo sapiens RGH1 gene, retrovirus-like element
607	13673	26577	4.13	0.0E+00	5174742	NT	Homo sapiens ubiquinol-cytochrome c reductase, Rieske iron-sulfur polypeptide 1 (UCRFS1), nuclear gene encoding mitochondrial protein, mRNA
620	13685		8.03	0.0E+00	J04068.1	NT	Human apolipoprotein A-I (ApoA-I) gene, exon 1
623	13688	26591	1.5	0.0E+00	BF104898.1	EST_HUMAN	8C1822627F1 NIH_MGC_75 Homo sapiens cDNA clone IMAGE:4046447 5'
625	13690	26593	3.67	0.0E+00	8923631	NT	Homo sapiens hypothetical protein FLJ20701 (FLJ20701), mRNA
626	13690	26594	3.67	0.0E+00	8923631	NT	Homo sapiens hypothetical protein FLJ20701 (FLJ20701), mRNA
627	13690	26593	2.83	0.0E+00	8923631	NT	Homo sapiens hypothetical protein FLJ20701 (FLJ20701), mRNA
628	13690	26594	2.83	0.0E+00	8923631	NT	Homo sapiens hypothetical protein FLJ20701 (FLJ20701), mRNA
627	13690	26593	3.96	0.0E+00	8923631	NT	Homo sapiens hypothetical protein FLJ20701 (FLJ20701), mRNA
632	13693	26597	4.64	0.0E+00	4501854	NT	Homo sapiens acetyl-Coenzyme A carboxylase beta (ACACB), mRNA
637	13698	26603	0.85	0.0E+00	AF221712.1	NT	Homo sapiens Smad- and Olf-interacting zinc finger protein mRNA, partial cds
637	13698	26604	0.85	0.0E+00	AF221712.1	NT	Homo sapiens Smad- and Olf-interacting zinc finger protein mRNA, partial cds
648	13707	26614	2.69	0.0E+00	AF149773.1	NT	Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3
648	13709	26617	0.72	0.0E+00	AB037807.1	NT	Homo sapiens mRNA for KIAA1389 protein, partial cds
650	13711	26618	1.16	0.0E+00	8806918	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
651	13712	26619	1.89	0.0E+00	8806918	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
651	13712	26620	1.89	0.0E+00	8806918	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
652	13713	26621	1.74	0.0E+00	8806918	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
652	13713	26622	1.74	0.0E+00	8806918	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
658	13720	26631	1.1	0.0E+00	AA390485.1	EST_HUMAN	z160c07.r1 Soares_Jeslis_NHT Homo sapiens cDNA clone IMAGE:726732 5'
662	13724	26635	6.75	0.0E+00	D11078.1	NT	Homo sapiens RGH2 gene, retrovirus-like element
666	13728	26638	35.2	0.0E+00	W78811.1	EST_HUMAN	z151b04.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:415587 5' similar to gb:A21187 ALPHA-2-MACROGLOBULIN PRECURSOR (HUMAN);
666	13728	26639	35.2	0.0E+00	W78811.1	EST_HUMAN	z151b04.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:415587 5' similar to gb:A21187 ALPHA-2-MACROGLOBULIN PRECURSOR (HUMAN);
669	13731		3.59	0.0E+00	4885526	NT	Homo sapiens novel SH2-containing protein 3 (NSP3) mRNA
676	13738	26651	3.64	0.0E+00	6006003	NT	Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2B (GRIN2B) mRNA
678	13740	26654	1.36	0.0E+00	5031624	NT	Homo sapiens CCAAT-box-binding transcription factor (CBF2) mRNA
681	13743	26658	1.56	0.0E+00	U08235.1	NT	Human neutral amino acid transporter (ASCT1) gene, exon 8

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Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
685	13747	26661	0.82	0.0E+00	AF108389.1	NT	Homo sapiens sodium/calcium exchanger isoform NaCa3 (NCX1) mRNA, complete cds
685	13747	26662	0.82	0.0E+00	AF108389.1	NT	Homo sapiens sodium/calcium exchanger isoform NaCa3 (NCX1) mRNA, complete cds
691	13752	26667	3.52	0.0E+00	4828947	NT	Homo sapiens protein kinase, X-linked (PRKX) mRNA
691	13752	26668	3.52	0.0E+00	4828947	NT	Homo sapiens protein kinase, X-linked (PRKX) mRNA
697	15880		1.1	0.0E+00	X57147.1	NT	Human endogenous retrovirus phiE-1 (ERV9)
708	13765	26682	6.62	0.0E+00	4504424	NT	Homo sapiens high-mobility group (nonhistone chromosomal) protein 1 (HMG1) mRNA
711	13770	26686	6.58	0.0E+00	AB029012.1	NT	Homo sapiens mRNA for KIAA1089 protein, partial cds
721	13779	26701	3.22	0.0E+00	7657488	NT	Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA np49401.s1 NCI_OGAP_Br1.1 Homo sapiens cDNA clone IMAGE:1126633 3' similar to gb:X57352
732	13780	26714	87.75	0.0E+00	AA614537.1	EST_HUMAN	INTERFERON-INDUCIBLE PROTEIN 1-8U (HUMAN); Human von Willebrand factor gene, exons 23 through 34
736	13784	26718	3.54	0.0E+00	M60675.1	NT	Human von Willebrand factor gene, exons 23 through 34
736	13794	26719	3.54	0.0E+00	M60675.1	NT	Human von Willebrand factor gene, exons 23 through 34
746	13804	26728	1.58	0.0E+00	5032192	NT	Homo sapiens TNF receptor-associated factor 1 (TRAF1) mRNA
752	13809	26734	3.52	0.0E+00	AF264750.1	NT	Homo sapiens ALR-like protein mRNA, partial cds
762	13809	26735	3.52	0.0E+00	AF264750.1	NT	Homo sapiens ALR-like protein mRNA, partial cds
754	13811	26738	9.88	0.0E+00	11545800	NT	Homo sapiens hypothetical protein FLJ21634 (FLJ21634), mRNA TCAAP1D0778 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCAA Homo
760	13817	26746	1.42	0.0E+00	BE241577.1	EST_HUMAN	sapiens cDNA clone TCAAP0779
780	13836	26770	1.03	0.0E+00	AF226590.2	NT	Homo sapiens MHC class I antigen (HLA-G) mRNA, HLA-G1 allele, complete cds
780	13836	26771	1.03	0.0E+00	AF226590.2	NT	Homo sapiens MHC class I antigen (HLA-G) mRNA, HLA-G1 allele, complete cds
781	13837	26772	0.66	0.0E+00	AF170492.1	NT	Homo sapiens chloride channel CLC4 (CLC4) mRNA, complete cds
784	13840	26775	2.01	0.0E+00	J03764.1	NT	Human, plasminogen activator inhibitor-1 gene, exons 2 to 9
784	13840	26776	2.01	0.0E+00	J03764.1	NT	Human, plasminogen activator inhibitor-1 gene, exons 2 to 9
787	13843	26777	1.3	0.0E+00	AB037760.1	NT	Homo sapiens mRNA for KIAA1339 protein, partial cds
788	13844	26778	1.11	0.0E+00	6912749	NT	Homo sapiens zinc finger protein 212 (ZNF212), mRNA
790	15894	26780	1.54	0.0E+00	D30612.1	NT	Homo sapiens mRNA for repressor protein, partial cds
791	13846	26781	2.2	0.0E+00	BE869735.1	EST_HUMAN	601445047F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3849803 6'
795	13850	26785	3.57	0.0E+00	R48815.1	EST_HUMAN	y69g08.r1 Soares breast 2NBHst Homo sapiens cDNA clone IMAGE:154046 5'
796	13851	26788	2.88	0.0E+00	5032086	NT	Homo sapiens splicing factor 3a, subunit 1, 120kD (SF3A1), mRNA
805	13860	26795	1.35	0.0E+00	AB011399.1	NT	Homo sapiens gene for AF-6, complete cds
808	13864	26799	2.28	0.0E+00	7661965	NT	Homo sapiens KIAA0170 gene product (KIAA0170), mRNA
819	13874	26811	1.06	0.0E+00	D80006.1	NT	Human mRNA for KIAA0184 gene, partial cds
819	13874	26812	1.06	0.0E+00	D80006.1	NT	Human mRNA for KIAA0184 gene, partial cds
824	13879	26816	1.89	0.0E+00	X89772.1	NT	H. sapiens mRNA for interferon alpha/beta receptor (long form)

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
828	13883	26820	2.25	0.0E+00	AB020717.1	NT	Homo sapiens mRNA for KIAA0810 protein, partial cds
828	13883	26821	2.25	0.0E+00	AB020717.1	NT	Homo sapiens mRNA for KIAA0810 protein, partial cds
832	13887	26825	7.59	0.0E+00	5174478	NT	Homo sapiens perlecanin (PCNT) mRNA
833	13888		8.25	0.0E+00	4507500	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
849	13904	26846	1.55	0.0E+00	7657213	NT	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA
850	13905	26847	2.23	0.0E+00	7657213	NT	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA
852	13907	26849	3.59	0.0E+00	4557686	NT	Homo sapiens potassium voltage-gated channel, Isk-related family, member 1 (KCNE1) mRNA
858	13912	26855	1.09	0.0E+00	AF108830.1	NT	Homo sapiens serine-threonine protein kinase (MNBH) mRNA, complete cds
859	13912	26856	1.09	0.0E+00	AF108830.1	NT	Homo sapiens serine-threonine protein kinase (MNBH) mRNA, complete cds
859	13913	26857	0.85	0.0E+00	AF108830.1	NT	Homo sapiens serine-threonine protein kinase (MNBH) mRNA, complete cds
864	13918	26862	1.53	0.0E+00	4503854	NT	Homo sapiens GA-binding protein transcription factor, alpha subunit (GBPA), mRNA
868	13921	26867	2.13	0.0E+00	4507500	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
868	13921	26868	2.13	0.0E+00	4507500	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
875	13928		1.31	0.0E+00	AF027153.1	NT	Homo sapiens sodium/myo-isoactin cotransporter (SLC5A3) gene, complete cds
879	13932	26879	3.49	0.0E+00	AB028942.1	NT	Homo sapiens mRNA for KIAA1019 protein, partial cds
879	13932	26880	3.49	0.0E+00	AB028942.1	NT	Homo sapiens mRNA for KIAA1019 protein, partial cds
880	13933	26881	8.07	0.0E+00	4507162	NT	Homo sapiens SON DNA binding protein (SON) mRNA
881	13934	26882	2.26	0.0E+00	AB028942.1	NT	Homo sapiens mRNA for KIAA1019 protein, partial cds
882	13935	26883	8.27	0.0E+00	4506728	NT	Homo sapiens ribosomal protein/S5 (RPS5) mRNA
886	13939	26886	1.07	0.0E+00	AB020717.1	NT	Homo sapiens mRNA for KIAA0310 protein, partial cds
886	13939	26887	1.07	0.0E+00	AB020717.1	NT	Homo sapiens mRNA for KIAA0310 protein, partial cds
887	13940	26888	1.53	0.0E+00	AA533272.1	EST_HUMAN	n66d07.e1 NCI CGAP_P10 Homo sapiens cDNA clone IMAGE:997453
887	13940	26889	1.53	0.0E+00	AA533272.1	EST_HUMAN	n66d07.e1 NCI CGAP_P10 Homo sapiens cDNA clone IMAGE:997453
888	13941		5.97	0.0E+00	BF677694.1	EST_HUMAN	60208579F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249915 5'
892	13945	26890	1.59	0.0E+00	7657213	NT	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA
892	13945	26891	1.59	0.0E+00	7657213	NT	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA
893	13946	26892	2.57	0.0E+00	7657213	NT	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA
893	13946	26893	2.57	0.0E+00	7657213	NT	Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA
916	13968	26918	0.99	0.0E+00	AL163203.2	NT	Homo sapiens chromosome 21, segment HS21C003
923	13976	26921	1.9	0.0E+00	BE089592.1	EST_HUMAN	QV0-BT0703-280400-211-g11 BT0703 Homo sapiens cDNA
923	13975	26922	1.9	0.0E+00	BE089592.1	EST_HUMAN	QV0-BT0703-280400-211-g11 BT0703 Homo sapiens cDNA
933	13985	26931	3.75	0.0E+00	AL163203.2	NT	Homo sapiens chromosome 21, segment HS21C003
943	13994		19.56	0.0E+00	4504958	NT	Homo sapiens laminin receptor 1 (67kD, ribosomal protein SA) (LAMR1), mRNA
946	13997	26939	3.17	0.0E+00	U35464.1	NT	Human protein C inhibitor (PCI-B) mRNA, complete cds

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
948	13987	26940	3.17	0.0E+00	U35464.1	NT	Human protein C inhibitor (PCI-B) mRNA, complete cds
948	13984		8.03	0.0E+00	4504958	NT	Homo sapiens laminin receptor 1 (67KD, ribosomal protein SA) (LAMR1), mRNA
949	13988	26942	729.35	0.0E+00	AF089747.1	NT	Homo sapiens alpha-1-antitrypsin precursor, mRNA, partial cds
950	14000	26943	6.71	0.0E+00	S69364.1	NT	protein C inhibitor [human, leukocytes, Genomic, 1216 nt, segment 2 of 5]
950	14000	26944	6.71	0.0E+00	S69364.1	NT	protein C inhibitor [human, leukocytes, Genomic, 1216 nt, segment 2 of 5]
950	14000	26945	6.71	0.0E+00	S69364.1	NT	protein C inhibitor [human, leukocytes, Genomic, 1216 nt, segment 2 of 5]
951	14001	26946	6.71	0.0E+00	L28101.1	NT	Homo sapiens kallistatin (P14) gene, exons 1-4, complete cds
954	14004	26949	0.71	0.0E+00	Z20656.1	NT	Homo sapiens of cardiac alpha-myosin heavy chain gene
954	14004	26950	0.71	0.0E+00	Z20656.1	NT	Homo sapiens of cardiac alpha-myosin heavy chain gene
978	14029	26971	0.91	0.0E+00	M37190.1	NT	Human ras inhibitor mRNA, 3' end
979	14030	26972	6.24	0.0E+00	M37190.1	NT	Human ras inhibitor mRNA, 3' end
980	14031	26973	9.08	0.0E+00	4507430	NT	Homo sapiens thyroidal embryonic factor (TEF), mRNA
980	14031	26974	9.08	0.0E+00	4507430	NT	Homo sapiens thyroidal embryonic factor (TEF), mRNA
988	15889	26981	3	0.0E+00	A1001948.1	EST_HUMAN	os98e03.s1 NCL_CGAP_GC3 Homo sapiens cDNA clone IMAGE:1613404 3'
988	15889	26982	3	0.0E+00	A1001948.1	EST_HUMAN	os98e03.s1 NCL_CGAP_GC3 Homo sapiens cDNA clone IMAGE:1613404 3'
990	14040	26984	4.79	0.0E+00	7657266	NT	Homo sapiens KIAA0929 protein Mix2 interacting nuclear target (MINT) homolog (KIAA0929), mRNA
1001	14050	26994	2.53	0.0E+00	AB030568.1	NT	Homo sapiens mRNA for PSP24, complete cds
1010	14059	27001	1.4	0.0E+00	BF366974.1	EST_HUMAN	PM2-GN0014-050900-001-02 GN0014 Homo sapiens cDNA
1010	14059	27002	1.4	0.0E+00	BF366974.1	EST_HUMAN	PM2-GN0014-050900-001-02 GN0014 Homo sapiens cDNA
1010	14059	27003	1.4	0.0E+00	BF366974.1	EST_HUMAN	PM2-GN0014-050900-001-02 GN0014 Homo sapiens cDNA
1011	14050	27004	1.79	0.0E+00	X52207.1	NT	Homo sapiens partial c-fgr gene; exons 2 and 3
1011	14050	27005	1.79	0.0E+00	X52207.1	NT	Homo sapiens partial c-fgr gene; exons 2 and 3
1020	14059	27012	1.4	0.0E+00	4757989	NT	Homo sapiens chromodomain protein, Y chromosome-like (CDYL) mRNA
1032	14080	27020	1.16	0.0E+00	U83668.1	NT	Human beta-tubulin (TUB4q) gene, complete cds
1033	14081	27021	13.88	0.0E+00	U83668.1	NT	Human beta-tubulin (TUB4q) gene, complete cds
1034	14081	27021	8.54	0.0E+00	U83668.1	NT	Human beta-tubulin (TUB4q) gene, complete cds
1037	14084		5.05	0.0E+00	AF198490.1	NT	Homo sapiens 8q22.1 region and MTG8 (CBFA2T1) gene, partial cds
1038	14084		6.98	0.0E+00	AF198490.1	NT	Homo sapiens 8q22.1 region and MTG8 (CBFA2T1) gene, partial cds
1041	14087	27026	1.14	0.0E+00	AF111170.3	NT	Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene
1042	14087	27026	1.28	0.0E+00	AF111170.3	NT	Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene
1043	14087	27026	1.25	0.0E+00	AF111170.3	NT	Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene
1044	14089	27027	2.02	0.0E+00	AF111170.3	NT	Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene
1047	14091	27030	2.12	0.0E+00	7661685	NT	Homo sapiens DKFZP586M0122 protein (DKFZP586M0122), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1051	14095	27034	2.35	0.0E+00	5803114	NT	Homo sapiens inner membrane protein, mitochondrial (mitofilin) (IMMT), mRNA
1052	14096		3.07	0.0E+00	AA458860.1	EST_HUMAN	es96g07.51 Stragene fetal retina 837202 Homo sapiens cDNA clone IMAGE:838236 3' similar to SW:PR98 HUMAN P47210 265 PROTEASE REGULATORY SUBUNIT 8 ;
1055	14099	27038	1.3	0.0E+00	N43182.1	EST_HUMAN	EST51124 WATM1 Homo sapiens cDNA clone 51124 similar to DNA-DIRECTED RNA POLYMERASE II (alignment Ser and Pro with BLASTx or p)
1055	14099	27039	1.3	0.0E+00	N43182.1	EST_HUMAN	EST51124 WATM1 Homo sapiens cDNA clone 51124 similar to DNA-DIRECTED RNA POLYMERASE II (alignment Ser and Pro with BLASTx or p)
1056	14100	27040	1.73	0.0E+00	4759249	NT	Homo sapiens TRAF family member-associated NFKB activator (TANK) mRNA
1056	14100	27041	1.73	0.0E+00	4759249	NT	Homo sapiens TRAF family member-associated NFKB activator (TANK) mRNA
1059	14103		3.42	0.0E+00	8922833	NT	Homo sapiens hypothetical protein FLJ11196 (FLJ11196), mRNA
1073	14117	27055	7.87	0.0E+00	4758569	NT	Homo sapiens heat shock 70kD protein 9B (mortalin-2) (HSPA9B) mRNA
1092	14135	27071	1.65	0.0E+00	4826872	NT	Homo sapiens cadherin 6, K-cadherin (fetal kidney) (CDH6) mRNA
1092	14135	27072	1.65	0.0E+00	4826872	NT	Homo sapiens cadherin 6, K-cadherin (fetal kidney) (CDH6) mRNA
1096	14139	27076	2.58	0.0E+00	8923624	NT	Homo sapiens hypothetical protein FLJ20695 (FLJ20695), mRNA
1096	14139	27077	2.58	0.0E+00	8923624	NT	Homo sapiens hypothetical protein FLJ20695 (FLJ20695), mRNA
1097	14140	27078	12.79	0.0E+00	AJ245922.1	NT	Homo sapiens mRNA for alpha-tubulin 8 (TUBA8 gene)
1099	14142		0.9	0.0E+00	8923087	NT	Homo sapiens hypothetical protein FLJ20080 (FLJ20080), mRNA
1101	14144	27082	2.61	0.0E+00	6174384	NT	Homo sapiens alkylation repair, alkB homolog (ABH), mRNA
1109	14151	27092	3.51	0.0E+00	4758117	NT	Homo sapiens Death associated protein 3 (DAP3) mRNA
1123	14165	27102	2.29	0.0E+00	BE005208.1	EST_HUMAN	MR0-BN0115-200300-003-P08 BN0115 Homo sapiens cDNA
1146	14188	27128	4.2	0.0E+00	7706134	NT	Homo sapiens potassium channel, subfamily K, member 9 (KCCK9), mRNA
1146	14188	27127	4.2	0.0E+00	7706134	NT	Homo sapiens potassium channel, subfamily K, member 9 (KCCK9), mRNA
1159	14200	27137	0.86	0.0E+00	4826947	NT	Homo sapiens protein kinase, X-linked (PRKX) mRNA
1159	14200	27138	0.86	0.0E+00	4826947	NT	Homo sapiens protein kinase, X-linked (PRKX) mRNA
1160	14201	27139	11.99	0.0E+00	4806712	NT	Homo sapiens ribosomal protein S27a (RPS27A) mRNA
1162	14203	27141	1	0.0E+00	8923290	NT	Homo sapiens hypothetical protein FLJ20309 (FLJ20309), mRNA
1165	14208	27144	2.97	0.0E+00	AB002059.1	NT	Homo sapiens DNA for Human P2XM, complete cds
1167	14208	27145	7.45	0.0E+00	AB002059.1	NT	Homo sapiens DNA for Human P2XM, complete cds
1188	14209	27146	3.4	0.0E+00	7657468	NT	Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA
1188	14209	27147	3.4	0.0E+00	7657468	NT	Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA
1172	14212	27150	1.24	0.0E+00	7706500	NT	Homo sapiens Npw88-binding protein NpwBP (LOC51729), mRNA
1173	14213	27151	1.71	0.0E+00	X95826.1	NT	H. sapiens ART4 gene
1173	14213	27152	1.71	0.0E+00	X95826.1	NT	H. sapiens ART4 gene
1174	14214	27163	1.46	0.0E+00	AI147650.1	EST_HUMAN	qb22d10.x1 Scores_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:1697011 3'

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1176	14216	27155	1.28	0.0E+00	AB020710.1	NT	Homo sapiens mRNA for KIAA0903 protein, partial cds
1183	14223	27161	1.51	0.0E+00	9966844	NT	Homo sapiens chromosome 12, open, reading frame 3 (C12ORF3), mRNA
1196	14235	27174	1.16	0.0E+00	7305076	NT	Homo sapiens glutamate decarboxylase 1 (brain, 67kD) (GAD1), transcript variant GAD25, mRNA
1198	14236	27175	1.16	0.0E+00	7305076	NT	Homo sapiens glutamate decarboxylase 1 (brain, 67kD) (GAD1), transcript variant GAD25, mRNA
1199	14239	27178	1.15	0.0E+00	AB037835.1	NT	Homo sapiens mRNA for KIAA1414 protein, partial cds
1206	14245	27187	13.55	0.0E+00	4657887	NT	Homo sapiens keratin 18 (KRT18), mRNA
1237	14273		1.09	0.0E+00	7657336	NT	Homo sapiens muIL (E. coli) homolog 3 (MLH3), mRNA
1254	14290	27233	0.98	0.0E+00	AF284750.1	NT	Homo sapiens ALR-like protein mRNA, partial cds
1254	14290	27234	0.98	0.0E+00	AF284750.1	NT	Homo sapiens ALR-like protein mRNA, partial cds
1255	14291	27235	1.37	0.0E+00	AF284750.1	NT	Homo sapiens ALR-like protein mRNA, partial cds
1258	14295	27236	0.86	0.0E+00	AF284750.1	NT	Homo sapiens ALR-like protein mRNA, partial cds
1274	14308	27299	4.51	0.0E+00	AF109718.1	NT	Homo sapiens chromosome 3 subtelomeric region
1275	14309	27280	1.01	0.0E+00	4503098	NT	Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA
1293	14326		1.72	0.0E+00	Y18000.1	NT	Homo sapiens NF2 gene
1301	14334	27280	60.39	0.0E+00	4506718	NT	Homo sapiens ribosomal protein S2 (RPS2), mRNA
1307	14340	27286	2.7	0.0E+00	AF084479.1	NT	Homo sapiens Williams-Beuren syndrome deletion transcript 9 (WBSCR9), mRNA, complete cds
1314	14347	27293	1.54	0.0E+00	AB040940.1	NT	Homo sapiens mRNA for KIAA1507 protein, partial cds
1314	14347	27294	1.54	0.0E+00	AB040940.1	NT	Homo sapiens mRNA for KIAA1507 protein, partial cds
1326	14360	27307	2.76	0.0E+00	5174748	NT	Homo sapiens Wolfram syndrome (WFS), mRNA
1326	14360	27308	2.76	0.0E+00	5174748	NT	Homo sapiens Wolfram syndrome (WFS), mRNA
1320	14360	27309	2.76	0.0E+00	5174748	NT	Homo sapiens Wolfram syndrome (WFS), mRNA
1327	14361		2.24	0.0E+00	AF096156.1	NT	Homo sapiens protein phosphatase 2A BR gamma subunit gene, exon 5
1337	14367	27321	1.32	0.0E+00	7657829	NT	Homo sapiens rhabdoid tumor deletion region protein 1 (RTDR1), mRNA
1337	14367	27322	1.32	0.0E+00	7657829	NT	Homo sapiens rhabdoid tumor deletion region protein 1 (RTDR1), mRNA
1343	14361	27328	0.89	0.0E+00	Y07829.2	NT	Homo sapiens RFB30 gene for RING finger protein
1344	14376	27329	1.84	0.0E+00	5903146	NT	Homo sapiens ring finger protein 9 (RNF9), mRNA
1346	14377	27330	2.23	0.0E+00	4508004	NT	Homo sapiens zinc finger protein 173 (ZNF173), mRNA
1347	14379	27331	0.9	0.0E+00	5803146	NT	Homo sapiens ring finger protein 9 (RNF9), mRNA
1348	14380	27332	1.83	0.0E+00	4508004	NT	Homo sapiens zinc finger protein 173 (ZNF173), mRNA
1350	14382	27334	3.66	0.0E+00	AB011149.1	NT	Homo sapiens KIAA0577 protein, complete cds
1351	14383	27335	2.89	0.0E+00	7651665	NT	Homo sapiens KIAA0170 gene product (KIAA0170), mRNA
1352	14384	27336	5.09	0.0E+00	7651665	NT	Homo sapiens KIAA0170 gene product (KIAA0170), mRNA
1353	14385	27337	3.86	0.0E+00	8567387	NT	Homo sapiens period (Drosophila) homolog 3 (PER3), mRNA
1353	14385	27338	3.86	0.0E+00	8567387	NT	Homo sapiens period (Drosophila) homolog 3 (PER3), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1365	14396	27351	1.34	0.0E+00	M14123.1	NT	Human endogenous retrovirus HERV-K10
1437	14468	27424	1.35	0.0E+00	AJ277892.1	NT	Homo sapiens partial TTN gene for titin
1440	14471	27428	4.10	0.0E+00	6042208	NT	RAN, member RAS oncogene family/Homo sapiens RAN, member RAS oncogene family (RAN), mRNA
1449	14480	27440	2.85	0.0E+00	7705565	NT	Homo sapiens KIAA1114 protein (KIAA1114), mRNA
1449	14480	27441	2.85	0.0E+00	7705565	NT	Homo sapiens KIAA1114 protein (KIAA1114), mRNA
1451	14482	27442	7.52	0.0E+00	AJ238093.1	NT	Homo sapiens partial AF-4 gene, exons 2 to 7 and Alu repeat elements
1459	14491	27452	2.71	0.0E+00	AF038280.1	NT	Homo sapiens alpha1-6fucosyltransferase (alpha1-6FucT) gene, exon 7
1468	14499	27480	1.21	0.0E+00	4507720	NT	Homo sapiens titin (TTN) mRNA
1468	14499	27481	1.21	0.0E+00	4507720	NT	Homo sapiens titin (TTN) mRNA
1472	14503	27484	5.87	0.0E+00	U35637.1	NT	Human nebulin mRNA, partial cds
1472	14503	27484	5.87	0.0E+00	U35637.1	NT	Human nebulin mRNA, partial cds
1472	14503	27484	5.87	0.0E+00	U35637.1	NT	Human nebulin mRNA, partial cds
1481	14512	27472	2.75	0.0E+00	AL132899.1	NT	Novel human gene on chromosome 20
1482	14513	27473	1.4	0.0E+00	AL132764.1	NT	Novel human gene mapping to chromosome 1
1486	14517	27478	2.41	0.0E+00	D87077.1	NT	Human mRNA for KIAA0240 gene, partial cds
1489	14520	27481	4.34	0.0E+00	6912457	NT	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA
1491	14522	27483	1.18	0.0E+00	7661965	NT	Homo sapiens KIAA0170 gene product (KIAA0170), mRNA
1491	14522	27484	1.18	0.0E+00	7661965	NT	Homo sapiens KIAA0170 gene product (KIAA0170), mRNA
1498	14527	27489	1.61	0.0E+00	M60678.1	NT	Human von Willebrand factor pseudogene corresponding to exons 23 through 34
1498	14527	27490	1.61	0.0E+00	M60678.1	NT	Human von Willebrand factor pseudogene corresponding to exons 23 through 34
1532	14562	27522	1.96	0.0E+00	7708434	NT	Homo sapiens HHDG for homolog of Drosophila headcase (LOC51696), mRNA
1548	14579	27539	1.93	0.0E+00	AA481172.1	EST_HUMAN	aa34a03.1 NCI_CGAP_G0331/Homo sapiens cDNA clone IMAGE:815110 5'
1555	14586	27543	17.47	0.0E+00	AF023860.1	NT	Cercopithecus aethiops cyclophilin A mRNA, complete cds
1555	14586	27544	17.47	0.0E+00	AF023860.1	NT	Cercopithecus aethiops cyclophilin A mRNA, complete cds
1557	14588	27547	1.04	0.0E+00	AW976097.1	EST_HUMAN	EST388208 IMAGE resequencing, MAGN Homo sapiens cDNA
1557	14588	27548	1.04	0.0E+00	AW976097.1	EST_HUMAN	EST388208 IMAGE resequencing, MAGN Homo sapiens cDNA
1558	14589	27549	0.85	0.0E+00	D10884.1	NT	Bovine mRNA for neurocalcin
1560	14591		5.14	0.0E+00	U78027.1	NT	Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds
1561	14592	27552	1.98	0.0E+00	4505404	NT	Homo sapiens transmembrane glycoprotein (GPNMB) mRNA
1561	14592	27553	1.98	0.0E+00	4505404	NT	Homo sapiens transmembrane glycoprotein (GPNMB) mRNA
1562	14593	27564	2.69	0.0E+00	7662405	NT	Homo sapiens KIAA0957 protein (KIAA0957), mRNA
1563	14594		10.66	0.0E+00	7666972	NT	Homo sapiens TNF-inducible protein CG12-1 (CG12-1), mRNA
1567	14598	27558	3.58	0.0E+00	M98478.1	NT	Human transglutaminase mRNA, complete cds

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1570	14601	27560	1.96	0.0E+00	4507720	NT	Homo sapiens tlin (TTN) mRNA
1570	14601	27561	1.96	0.0E+00	4507720	NT	Homo sapiens tlin (TTN) mRNA
1571	15904		11.95	0.0E+00	4508634	NT	Homo sapiens ribosomal protein L5 (RPL5) mRNA
1572	14602	27562	11.4	0.0E+00	M14199.1	NT	Human laminin receptor (2H5 epitope) mRNA, 5' end
1583	14614	27576	10.2	0.0E+00	4503098	NT	Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA
1591	14622		1.59	0.0E+00	D00333.1	NT	human c-yes-2 gene
1602	14633	27593	2.68	0.0E+00	Z83738.1	NT	H. sapiens hH2B/e gene
1603	14634	27594	1.9	0.0E+00	5921460	NT	Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA
1603	14634	27595	1.9	0.0E+00	5921460	NT	Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA
1604	14635	27596	13.79	0.0E+00	AV690831.1	EST_HUMAN	AV690831 GKG Homo sapiens cDNA clone GKGBOF02 5'
1604	14635	27597	13.79	0.0E+00	AV690831.1	EST_HUMAN	AV690831 GKG Homo sapiens cDNA clone GKGBOF02 5'
1607	15905	27600	2.29	0.0E+00	AB040905.1	NT	Homo sapiens mRNA for KIAA1472 protein, partial cds
1611	14641	27601	1.28	0.0E+00	AF157476.1	NT	Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds
1613	14643	27604	3.18	0.0E+00	7662183	NT	Homo sapiens KIAA0569 gene product (KIAA0569), mRNA
1613	14643	27605	3.18	0.0E+00	7662183	NT	Homo sapiens KIAA0569 gene product (KIAA0569), mRNA
1615	14645	27606	18.93	0.0E+00	5729876	NT	Homo sapiens heat shock 70kD protein 10 (HSC71) (HSPA10), mRNA
1615	14645	27607	18.93	0.0E+00	5729876	NT	Homo sapiens heat shock 70kD protein 10 (HSC71) (HSPA10), mRNA
1617	14647	27609	2.33	0.0E+00	M91803.1	NT	Human sodium channel mRNA
1631	14661	27624	3.83	0.0E+00	H26973.1	EST_HUMAN	yc76c05.s1 Soares adult brain N2b4HB55Y Homo sapiens cDNA clone IMAGE:183848 3'
1641	14672	27636	1.67	0.0E+00	AB046820.1	NT	Homo sapiens mRNA for KIAA1609 protein, partial cds
1641	14672	27637	1.57	0.0E+00	AB046829.1	NT	Homo sapiens mRNA for KIAA1609 protein, partial cds
1664	14694	27654	1.11	0.0E+00	AW444637.1	EST_HUMAN	UIH-B13-gw-c-04-c-01.s1 NOI CGAP Sub5 Homo sapiens cDNA clone IMAGE:2733294 3'
1691	14721	27684	1	0.0E+00	BE144394.1	EST_HUMAN	MRO-HT0166-191199-004-b11 HT0166 Homo sapiens cDNA
1691	14721	27685	1	0.0E+00	BE144394.1	EST_HUMAN	MRO-HT0166-191199-004-b11 HT0166 Homo sapiens cDNA
1695	14725	27689	1.1	0.0E+00	A1768104.1	EST_HUMAN	wg81b07.x1 Soares NSF_F8_gw_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2371477 3' similar to TR:Q62768 Q62788 CYS2/HIS2 ZINC FINGER PROTEIN. ;
1698	14726	27690	2.39	0.0E+00	AF057177.1	NT	Homo sapiens T-cell receptor gamma V1 gene region
1700	14728	27694	1.17	0.0E+00	M29590.1	NT	Human zinc-finger protein 7 (ZFP7) mRNA, complete cds
1700	14729	27695	1.17	0.0E+00	M29590.1	NT	Human zinc-finger protein 7 (ZFP7) mRNA, complete cds
1702	14731	27697	12.36	0.0E+00	4557887	NT	Homo sapiens keratin 18 (KRT18) mRNA
1703	14732	27698	1.47	0.0E+00	7657066	NT	Homo sapiens v-bis avian erythroblastosis virus E26 oncogene related (ERG), mRNA
1707	14736	27701	1.31	0.0E+00	BE222374.1	EST_HUMAN	hu11d05.x1 NOI CGAP Lu24 Homo sapiens cDNA clone IMAGE:3168281 3' similar to TR:Q95147 Q95147 MKP-1 LIKE PROTEIN TYROSINE PHOSPHATASE ;



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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1707	14736	27702	1.31	0.0E+00	BE222374.1	EST_HUMAN	h111405.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3186281 3' similar to TR:095147 095147 MKP-1 LIKE PROTEIN TYROSINE PHOSPHATASE.
1710	14738	27706	3.74	0.0E+00	H30132.1	EST_HUMAN	yo59608.r1 Soares breast 3NBH3st Homo sapiens cDNA clone IMAGE:182246 5' similar to gb:M64099 GAMMA-GLUTAMYL TRANSPEPTIDASE 5 PRECURSOR (HUMAN);
1710	14738	27707	3.74	0.0E+00	H30132.1	EST_HUMAN	yo59608.r1 Soares breast 3NBH3st Homo sapiens cDNA clone IMAGE:182246 5' similar to gb:M64099 GAMMA-GLUTAMYL TRANSPEPTIDASE 5 PRECURSOR (HUMAN);
1712	14740		1.21	0.0E+00	A1149880.1	EST_HUMAN	q143069.x1 Soares testis_NHT Homo sapiens cDNA clone IMAGE:1752809 3'
1713	14741	27709	2.19	0.0E+00	Z80780.1	NT	H.sapiens H2B/h gene
1713	14741	27710	2.19	0.0E+00	Z80780.1	NT	H.sapiens H2B/h gene
1716	14744		9.49	0.0E+00	5031748	NT	Homo sapiens high-mobility group (nonhistone chromosomal) protein 17 (HMG17), mRNA
1726	14753	27723	4.63	0.0E+00	8923841	NT	Homo sapiens FOXJ2 forkhead factor (LOC55810), mRNA
1729	14766	27726	3.03	0.0E+00	5453855	NT	Homo sapiens pericentriolar material 1 (PCM1) mRNA
1736	14769	27734	1.22	0.0E+00	4926973	NT	Homo sapiens RNA binding motif protein, Y chromosome, family 1, member A1 (RBM1A1) mRNA
1742	14769	27741	4.43	0.0E+00	AB026542.1	NT	Homo sapiens WAVE2 mRNA for WASP-family protein, complete cds
1744	14771		2.22	0.0E+00	S94400.1	NT	TCR zeta (human, Genomic/mRNA, 365 nt, segment 1 of 8)
1753	14780	27750	0.93	0.0E+00	4567538	NT	Homo sapiens solute carrier family 26 (sulfate transporter), member 2 (SLC26A2) mRNA
1761	15909	27758	0.82	0.0E+00	11545911	NT	Homo sapiens NOD2 protein (NOD2), mRNA
1772	14798	27768	2.15	0.0E+00	AF273841.1	NT	Homo sapiens SMCY (SMCY) gene, complete cds
1809	15910		20.56	0.0E+00	4506718	NT	Homo sapiens ribosomal protein S2 (RPS2) mRNA
1812	14837	27808	2.18	0.0E+00	4557559	NT	Homo sapiens E1A binding protein p300 (EP300) mRNA
1812	14837	27809	2.18	0.0E+00	4557556	NT	Homo sapiens E1A binding protein p300 (EP300) mRNA
1816	14839	27813	1.64	0.0E+00	U63963.1	NT	Human CSF-1 receptor (FMS) gene, complete cds, and (SMF) gene, partial cds
1818	14842		0.99	0.0E+00	W75671.1	EST_HUMAN	z666g09.r1 Soares_fetal_heart_NBHH19W Homo sapiens cDNA clone IMAGE:345664 5'
1819	15911	27817	3.07	0.0E+00	4505332	NT	Homo sapiens nuclear autoantigenic sperm protein (histone-binding) (NASP) mRNA
1829	14852	27830	10.54	0.0E+00	U14967.1	NT	Human ribosomal protein L21 mRNA, complete cds
1831	14854	27833	3.31	0.0E+00	AB002331.1	NT	Human mRNA for KIAA0333 gene, partial cds
1832	14855	27834	6	0.0E+00	4502264	NT	Homo sapiens activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) mRNA
1832	14855	27835	6	0.0E+00	4502264	NT	Homo sapiens activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) mRNA
1832	14855	27836	6	0.0E+00	4502264	NT	Homo sapiens activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) mRNA
1846	14869	27851	1	0.0E+00	4504826	NT	Homo sapiens immunoglobulin superfamily, member 3 (IGSF3) mRNA, and translated products
1846	14869	27852	1	0.0E+00	4504826	NT	Homo sapiens immunoglobulin superfamily, member 3 (IGSF3) mRNA, and translated products

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1858	14860	27859	7.22	0.0E+00	6005855	NT	Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA
1858	14860	27860	7.22	0.0E+00	6005855	NT	Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA
1869	14891	27871	1.43	0.0E+00	AB032978.1	NT	Homo sapiens mRNA for KIAA1152 protein, partial cds
1869	14891	27872	1.43	0.0E+00	AB032978.1	NT	Homo sapiens mRNA for KIAA1152 protein, partial cds
1872	14853	27874	4.78	0.0E+00	4826783	NT	Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNCB1) mRNA
1872	14853	27875	4.78	0.0E+00	4826783	NT	Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNCB1) mRNA
1873	14884	27876	5.07	0.0E+00	U07147.1	NT	Human retinal degeneration slow (RDS) gene, exon 1
1873	14884	27877	5.07	0.0E+00	U07147.1	NT	Human retinal degeneration slow (RDS) gene, exon 1
1876	14897	27880	2.49	0.0E+00	AW207280.1	EST_HUMAN	U1-H-B11-afn-f07-0-U1.s1 NCL CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2722333 3'
1876	14897	27881	2.49	0.0E+00	AW207280.1	EST_HUMAN	U1-H-B11-afn-f07-0-U1.s1 NCL CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2722333 3'
1898	14919	27898	2.39	0.0E+00	BE277465.1	EST_HUMAN	601179164F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3547239 5'
1898	14919	27899	2.39	0.0E+00	BE277465.1	EST_HUMAN	601179164F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3547239 5'
1912	14933	27910	1.05	0.0E+00	BE006292.1	EST_HUMAN	RC2-BN0126-200300-012-504 JN0126 Homo sapiens cDNA
1935	14956	27933	1.42	0.0E+00	7657390	NT	Homo sapiens nuclear protein (NP220), mRNA
1935	14956	27934	1.42	0.0E+00	7657390	NT	Homo sapiens nuclear protein (NP220), mRNA
1938	14959	27936	1.78	0.0E+00	4506984	NT	Homo sapiens RAD1 (S. pombe) homolog (RAD1) mRNA, and translated products
1938	14959	27937	1.78	0.0E+00	4506984	NT	Homo sapiens RAD1 (S. pombe) homolog (RAD1) mRNA, and translated products
1946	14967		1.61	0.0E+00	AF167478.1	NT	Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds
1947	15913	27946	3.26	0.0E+00	M98478.1	NT	Human transglutaminase mRNA, complete cds
1947	15913	27947	3.26	0.0E+00	M98478.1	NT	Human transglutaminase mRNA, complete cds
1952	14972	27954	1.7	0.0E+00	4507464	NT	Homo sapiens transforming growth factor, beta 3 (TGFB3), mRNA
1952	14972	27955	1.7	0.0E+00	4507464	NT	Homo sapiens transforming growth factor, beta 3 (TGFB3), mRNA
1955	14974	27957	1.04	0.0E+00	7657038	NT	Homo sapiens death receptor 6 (DR6), mRNA
1957	14976		4.64	0.0E+00	AF240786.1	NT	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds
1982	14981		1.89	0.0E+00	M55632.1	NT	Human topoisomerase I pseudogene 1
1983	15914	27964	1.66	0.0E+00	5801905	NT	Homo sapiens butyrophilin, subfamily 3, member A2 (BTN3A2), mRNA
1970	14988	27970	2.83	0.0E+00	4809282	NT	Homo sapiens histidine ammonia-lyase (HAL) mRNA
1970	14988	27971	2.83	0.0E+00	4809282	NT	Homo sapiens histidine ammonia-lyase (HAL) mRNA
1982	15000		1.09	0.0E+00	AL183252.2	NT	Homo sapiens chromosome 21 segment HS21C052
1984	15002	27987	2.88	0.0E+00	8400716	NT	Homo sapiens nebulin (NEB), mRNA
1984	15002	27988	2.88	0.0E+00	8400716	NT	Homo sapiens nebulin (NEB), mRNA

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
1985	15003	27889	3.9	0.0E+00	4826638	NT	Homo sapiens actinin, alpha 4 (ACTN4) mRNA
1985	15003	27890	3.9	0.0E+00	4826638	NT	Homo sapiens actinin, alpha 4 (ACTN4) mRNA
1987	15015	28005	1.39	0.0E+00	AB018333.1	NT	Homo sapiens mRNA for KIAA0790 protein, partial cds
1997	15015	28006	1.39	0.0E+00	AB018333.1	NT	Homo sapiens mRNA for KIAA0790 protein, partial cds
2003	15021	28010	1.5	0.0E+00	M33782.1	NT	Human TFEB protein mRNA, partial cds
2003	15021	28011	1.5	0.0E+00	M33782.1	NT	Human TFEB protein mRNA, partial cds
2005	15023	28012	1.71	0.0E+00	AW183024.1	EST_HUMAN	x69501.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2679913 3'
2005	15023	28013	1.71	0.0E+00	AW183024.1	EST_HUMAN	x69501.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2679913 3'
2006	15024	28014	3.87	0.0E+00	6912457	NT	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA
2008	15026	28015	3.87	0.0E+00	6912457	NT	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA
2008	15026	28017	1.11	0.0E+00	AB011149.1	NT	Homo sapiens mRNA for KIAA0577 protein, complete cds
2009	15027	28018	1.13	0.0E+00	Z47556.1	NT	H. sapiens genes for semenogelin I and semenogelin II
2009	15027	28019	1.13	0.0E+00	Z47556.1	NT	H. sapiens genes for semenogelin I and semenogelin II
2016	15034	28028	3	0.0E+00	AB040946.1	NT	Homo sapiens SMCY (SMCY) gene, complete cds
2034	15051	28048	0.9	0.0E+00	AF273841.1	NT	Homo sapiens SMCY (SMCY) gene, complete cds
2034	15051	28049	0.9	0.0E+00	AF273841.1	NT	Homo sapiens SMCY (SMCY) gene, complete cds
2070	15085	28084	4.95	0.0E+00	BE743215.1	EST_HUMAN	601573895F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3835198 5'
2070	15085	28085	4.95	0.0E+00	BE743215.1	EST_HUMAN	601573895F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3835198 5'
2072	15087	28086	2.83	0.0E+00	4503848	NT	Homo sapiens coagulation factor IX (plasma thromboplastin component, Christmas disease, hemophilia B) (F9) mRNA
2073	15088	28087	5.21	0.0E+00	AU140831.1	EST_HUMAN	AU140831 PLAGE4 Homo sapiens cDNA clone PLACE4000321 5'
2074	14480	27440	1.64	0.0E+00	7705565	NT	Homo sapiens KIAA1114 protein (KIAA1114), mRNA
2074	14480	27441	1.64	0.0E+00	7705565	NT	Homo sapiens KIAA1114 protein (KIAA1114), mRNA
2076	15090	28089	1.91	0.0E+00	AA077589.1	EST_HUMAN	7B22E10 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B22E10
2076	15090	28090	1.81	0.0E+00	AA077589.1	EST_HUMAN	7B22E10 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B22E10
2078	15092		7.31	0.0E+00		NT	Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA
2080	15094		1.52	0.0E+00	4586963	NT	Homo sapiens phosphodiesterase 6A, cGMP-specific, rod, alpha (PDE6A), mRNA
2081	15095	28093	0.91	0.0E+00	Z42399.1	EST_HUMAN	HSC01C021 normalized infant brain cDNA Homo sapiens cDNA clone c-01C02
2083	15097		1.37	0.0E+00	A1244247.1	EST_HUMAN	q60008.x1 NCI_CGAP_U2 Homo sapiens cDNA clone IMAGE:1988871 3' similar to contains Alu repetitive element
2088	15102	28102	1.9	0.0E+00	BE977225.1	EST_HUMAN	601485146F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3887747 5'
2090	15104	28104	1.78	0.0E+00	BF315325.1	EST_HUMAN	601802604F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4135320 5'
2090	15104	28105	1.76	0.0E+00	BF315325.1	EST_HUMAN	601802604F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4135320 5'
2093	15107	28108	3.38	0.0E+00	BE697125.1	EST_HUMAN	RC3-CT0413-270700-022-410 CT0413 Homo sapiens cDNA

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2093	15107	28109	3.38	0.0E+00	BE697125.1	EST_HUMAN	RC3-CT0413-270700-022-d10 C10413 Homo sapiens cDNA
2099	15113	28117	2.98	0.0E+00	L00620.1	NT	Human plasma membrane calcium ATPase isoform 2 (APT2B2) mRNA, complete cds
2099	15113	28118	2.99	0.0E+00	L00620.1	NT	Human plasma membrane calcium ATPase isoform 2 (APT2B2) mRNA, complete cds
2104	15118	28122	0.92	0.0E+00	4758483	NT	Homo sapiens GTP binding protein 1 (GTPBP1) mRNA
2126	15139		3.8	0.0E+00	BE767964.1	EST_HUMAN	QV1-GN0065-140800-378-c10 GN0065 Homo sapiens cDNA
2127	15140		1.41	0.0E+00	AF018963.1	NT	Homo sapiens X-linked juvenile rathoschisis protein (XLR51) gene, exon 6 and complete cds
2129	15142	28145	3.73	0.0E+00	BF027562.1	EST_HUMAN	PM0-BT0547-210300-004-F04 BT0547 Homo sapiens cDNA
2130	15143	28146	1.57	0.0E+00	BE072624.1	EST_HUMAN	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds
2132	15145	28147	1.29	0.0E+00	AF240788.1	NT	IL3-CT0219-271099-022-G10 CT0219 Homo sapiens cDNA
2135	15148	28149	2.59	0.0E+00	AW752708.1	EST_HUMAN	QV-BT065-020399-092 BT065 Homo sapiens cDNA
2137	15150	28151	2.51	0.0E+00	A1904940.1	EST_HUMAN	QV-BT065-020399-092 BT065 Homo sapiens cDNA
2137	15150	28152	2.51	0.0E+00	A1904940.1	EST_HUMAN	Homo sapiens potassium large conductance calcium-activated channel, subfamily M, beta member 3-like (KCNNB3L), mRNA
2171	15183		1	0.0E+00	7667262	NT	Human DNA-binding protein mRNA, 3' end
2193	15204		1.04	0.0E+00	L14787.1	NT	601122338F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3346688 5'
2201	15212	28214	0.98	0.0E+00	BE274696.1	EST_HUMAN	Human mRNA for KIAA0244 gene, partial cds
2203	15214	28217	1.01	0.0E+00	D67885.1	NT	AV738288 CB Homo sapiens cDNA clone CBNDDE08 5'
2204	15215	28218	6.93	0.0E+00	AV738288.1	EST_HUMAN	AV738288 CB Homo sapiens cDNA clone CBNDDE08 5'
2204	15215	28219	6.93	0.0E+00	AV738288.1	EST_HUMAN	oc32901.s1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1567896 3'
2206	15217	28221	1.34	0.0E+00	AA691691.1	EST_HUMAN	Human apolipoprotein B-100 (apoB) gene, exons 22 through 29
2208	15219		29.79	0.0E+00	M19828.1	NT	602014829F1 NCI_CGAP_Bn64 Homo sapiens cDNA clone IMAGE:4150734 5'
2210	15221	28224	15.41	0.0E+00	BF344434.1	EST_HUMAN	601572186T1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3839012 3'
2211	15222	28225	17.81	0.0E+00	BE748998.1	EST_HUMAN	GM1-TN0141-250900-439-b08 TN0141 Homo sapiens cDNA
2214	15226	28228	11.4	0.0E+00	BF377897.1	EST_HUMAN	GM1-TN0141-250900-439-b08 TN0141 Homo sapiens cDNA
2214	15225	28229	11.4	0.0E+00	BF377897.1	EST_HUMAN	601900281F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4129622 5'
2218	15919	28234	3.1	0.0E+00	BF313617.1	EST_HUMAN	bb94602.Y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3049082 5' similar to TR:Q15170 Q15170
2221	15231	28237	1.27	0.0E+00	BE018790.1	EST_HUMAN	TRANSCRIPTION FACTOR S-II-RELATED PROTEIN ;
2222	15232	28238	1.89	0.0E+00	AA042813.1	EST_HUMAN	z483c07.s1 Soares, pregnant, uterus, NBHPU Homo sapiens cDNA clone IMAGE:486840 3' similar to gb:X65857_cds1 OLFACTORY RECEPTOR-LIKE PROTEIN HGMPO7E (HUMAN);
2222	15232	28239	1.89	0.0E+00	AA042813.1	EST_HUMAN	z483c07.s1 Soares, pregnant, uterus, NBHPU Homo sapiens cDNA clone IMAGE:486840 3' similar to gb:X65857_cds1 OLFACTORY RECEPTOR-LIKE PROTEIN HGMPO7E (HUMAN);
2230	15240	28247	2.52	0.0E+00	AL183204.2	NT	Homo sapiens chromosome 21 segment HS21C004

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2230	15240	28248	2.52	0.0E+00	AL163204.2	NT	Homo sapiens chromosome 21 segment HS21C004
2235	15245		1.88	0.0E+00	U36264.1	NT	Human beta-prime-adipin (BAM22) gene, exon 16
2241	15251		11.93	0.0E+00	M20903.1	NT	Human apolipoprotein C-I pseudogene, complete cds
2255	15265	28273	5.6	0.0E+00	4557556	NT	Homo sapiens E1A binding protein p300 (EP300) mRNA
2261	15271	28277	1.23	0.0E+00	7682401	NT	Homo sapiens KIAA0952 protein (KIAA0952), mRNA
2269	15279	28288	1.89	0.0E+00	BE895281.1	EST_HUMAN	601433525F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918607 5'
2273	15283	28290	1.27	0.0E+00	BE905563.1	EST_HUMAN	601495208F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3897457 5'
2273	15283	28291	1.27	0.0E+00	BE905563.1	EST_HUMAN	601495208F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3897457 5'
2276	15285	28293	1.03	0.0E+00	AB037784.1	NT	Homo sapiens mRNA for KIAA1383 protein, partial cds
2319	15327	28328	1.05	0.0E+00	BF344756.1	EST_HUMAN	602014009F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4149770 5'
2319	15327	28329	1.05	0.0E+00	BF344756.1	EST_HUMAN	602014009F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4149770 5'
2320	15328	28330	4.27	0.0E+00	11545748	NT	Homo sapiens differentially expressed in FDCP (mouse homolog) 6 (DEF6), mRNA
2320	15328	28331	4.27	0.0E+00	11545748	NT	Homo sapiens differentially expressed in FDCP (mouse homolog) 6 (DEF6), mRNA
2321	15329	28332	2.52	0.0E+00	A1076404.1	EST_HUMAN	0209007.X1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1674828 3'
2324	15332	28335	1.85	0.0E+00	AA429001.1	EST_HUMAN	z178a11.1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:759740 5'
2324	15332	28339	1.85	0.0E+00	AA429001.1	EST_HUMAN	z178a11.1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:759740 5'
2326	15334	28338	5.26	0.0E+00	AA680387.1	EST_HUMAN	z111e12.e1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:430510 3'
2327	15335	28339	1.15	0.0E+00	BF347039.1	EST_HUMAN	602021846F1 NCI_CGAP_Brn87 Homo sapiens cDNA clone IMAGE:4157339 5'
2332	15340	28345	2.72	0.0E+00	L02840.1	NT	Homo sapiens potassium channel Kv2.1 mRNA, complete cds
2333	15341	28346	7.01	0.0E+00	6325468	NT	Homo sapiens flavin containing monooxygenase 3 (FMO3), mRNA
2340	15348	28352	2.25	0.0E+00	BE676095.1	EST_HUMAN	T22402.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:3295370 3' similar to TR:O84939 O84939 KIAA0857 PROTEIN;
2343	15351	28354	5.72	0.0E+00	AF044571.1	NT	Homo sapiens phosphotyrosine kinase alpha subunit (PHKA2) gene, exon 32
2344	15352	28355	2.4	0.0E+00	A1825542.1	EST_HUMAN	ty57c08.x1 NCI_CGAP_U12 Homo sapiens cDNA clone IMAGE:2283182 3'
2345	15353	28356	1.36	0.0E+00	AB011399.1	NT	Homo sapiens gene for AF-6, complete cds
2350	15358	28360	2.44	0.0E+00	5803178	NT	Homo sapiens sperm specific antigen 2 (SSFA2), mRNA
2350	15358	28361	2.44	0.0E+00	5803178	NT	Homo sapiens sperm specific antigen 2 (SSFA2), mRNA
2357	15364	28366	1.69	0.0E+00	7682007	NT	Homo sapiens KIAA0218 gene product (KIAA0218), mRNA
2357	15364	28367	1.59	0.0E+00	7682007	NT	Homo sapiens KIAA0218 gene product (KIAA0218), mRNA
2362	15368		1.69	0.0E+00	4557521	NT	Homo sapiens deiodinase, iodothyronine, type I (DIO1) mRNA
2371	15377	28378	3.14	0.0E+00	5174678	NT	Homo sapiens signal regulatory protein, beta, 1 (SIRP-BETA-1) mRNA
2375	15380	28382	2.68	0.0E+00	AU131142.1	EST_HUMAN	AU131142 NT2RP3 Homo sapiens cDNA clone NT2RP3002064 5'
2376	15381		7.46	0.0E+00	BE794026.1	EST_HUMAN	601598843F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3941003 5'
2377	15382	28383	1.09	0.0E+00	AW667076.1	EST_HUMAN	MIR1-SN0033-120400-002-c04 SN0033 Homo sapiens cDNA

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2378	15383	28384	3.83	0.0E+00	7682017	NT	Homo sapiens KIAA0244 protein (KIAA0244), mRNA
2379	15384	28385	2.37	0.0E+00	4759497	NT	Homo sapiens hexose-6-phosphate dehydrogenase (glucose 1-dehydrogenase) (H6PD), mRNA
2379	15384	28385	2.37	0.0E+00	4759497	NT	Homo sapiens hexose-6-phosphate dehydrogenase (glucose 1-dehydrogenase) (H6PD), mRNA
							Homo sapiens cytochrome P450 polypeptide 43 (CYP3A43) gene, partial cds: cytochrome P450 polypeptide 4 (CYP3A4) and cytochrome P450 polypeptide 7 (CYP3A7) genes, complete cds, and cytochrome P450 polypeptide 5 (CYP3A5) gene, partial cds
2380	15385		8.43	0.0E+00	AF280107.1	NT	
2382	15387	28388	7.6	0.0E+00	AU118082.1	EST_HUMAN	AU118082 HEMBA1 Homo sapiens cDNA clone HEMBA1002839 5'
2382	15387	28389	7.6	0.0E+00	AU118082.1	EST_HUMAN	AU118082 HEMBA1 Homo sapiens cDNA clone HEMBA1002839 5'
2382	15387	28390	7.6	0.0E+00	AU118082.1	EST_HUMAN	AU118082 HEMBA1 Homo sapiens cDNA clone HEMBA1002839 5'
2383	15388	28391	0.98	0.0E+00	8923089	NT	Homo sapiens hypothetical protein FLJ20081 (FLJ20081), mRNA
2439	15443	28443	1.62	0.0E+00	AU119582.1	EST_HUMAN	AU119582 HEMBA1 Homo sapiens cDNA clone HEMBA1008155 5'
2441	15445		4.5	0.0E+00	AJ042035.1	EST_HUMAN	ox60b02.x1 Soares, NHMPu, S1 Homo sapiens cDNA clone IMAGE:1680683 3' similar to TR:008662
2442	15446	28445	0.91	0.0E+00	8923620	NT	O08682 230KDA PHOSPHATIDYLINOSITOL 4-KINASE ;
2445	15449		1.23	0.0E+00	BE995605.1	EST_HUMAN	Homo sapiens hypothetical protein FLJ20693 (FLJ20693), mRNA
2448	15452	28448	1.76	0.0E+00	BE937632.1	EST_HUMAN	801432608F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918188 5'
2457	15461		2.84	0.0E+00	AB005622.1	EST_HUMAN	MR1-TN0021-280800-001-106 TN0021 Homo sapiens cDNA
2459	15463	28460	5.79	0.0E+00	6006002	NT	AB005622 HeLa cDNA (T.Nom) Homo sapiens cDNA similar to adenylate kinase isozyme 2
2463	15466	28464	1.83	0.0E+00	D85608.1	NT	Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2A (GRIN2A) mRNA
2463	15466	28465	1.83	0.0E+00	D85608.1	NT	Homo sapiens gene for cholesterylkinin type-A receptor, complete cds
2472	15475	28475	2.34	0.0E+00	AF106275.1	NT	Homo sapiens immunoglobulin-like transcript 1c variant 4 (ILT1c) gene, exon 6
2477	15479	28480	1.46	0.0E+00	BF345274.1	EST_HUMAN	602018058F1 NCL_CGAP_Binf7 Homo sapiens cDNA clone IMAGE:4153670 5'
2483	15485	28487	4.12	0.0E+00	5729777	NT	Homo sapiens collagen, type XII, alpha 1 (COL12A1), mRNA
2491	15493	28493	12.96	0.0E+00	BF669144.1	EST_HUMAN	602184558F1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300383 3'
2500	15502	28503	2.65	0.0E+00	AW466922.1	EST_HUMAN	ha04h04.x1 NCL_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2872769 3'
2502	15504	28504	3.27	0.0E+00	AW501010.1	EST_HUMAN	U1HF-BP0p-als-c-07-0-UI1 NIH_MGC_51 Homo sapiens cDNA clone IMAGE:3072780 5'
2530	15531		2.28	0.0E+00	AW813853.1	EST_HUMAN	RC3-ST0197-300300-016-c04 ST0197 Homo sapiens cDNA
2535	15536	28536	16.31	0.0E+00	BE795542.1	EST_HUMAN	60192530F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3946518 5'
2536	14974	27957	1.39	0.0E+00	7657038	NT	Homo sapiens death receptor 6 (DR6), mRNA
2537	15537	28537	1.76	0.0E+00	BF509482.1	EST_HUMAN	U1H-B14-aoz-b-08-0-UI.1 NCL_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3086536 3'
2540	15540	28539	2.44	0.0E+00	Z32684.2	NT	Homo sapiens mRNA for membrane transport protein (XK gene)
2542	15542		5.02	0.0E+00	5453871	NT	Homo sapiens platelet-derived growth factor receptor-like (PDGFR) mRNA
2545	15545	28543	0.91	0.0E+00	BE010378.1	EST_HUMAN	601503356F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3905148 5'
2546	15546	28544	8.62	0.0E+00	7657468	NT	Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2547	15547	28545	1.21	0.0E+00	BE150865.1	EST_HUMAN	RC4-H10276-160200-013-d05 H10276 Homo sapiens cDNA
2548	15548	28546	1.79	0.0E+00	8823340	NT	Homo sapiens hypothetical protein FLJ20366 (FLJ20366), mRNA
2549	15549	28547	4.11	0.0E+00	U93239.1	NT	Human Sec62 (Sec62), mRNA, complete cds
2555	15555	28553	1.54	0.0E+00	BE886430.1	EST_HUMAN	60150821F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3909868 5'
2560	15559	28569	6.48	0.0E+00	BE875511.1	EST_HUMAN	60148924F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3891371 5'
2560	15559	28560	6.48	0.0E+00	BE875511.1	EST_HUMAN	60148924F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3891371 5'
2561	15560	28561	1.09	0.0E+00	AF114027.1	EST_HUMAN	AF114027 Homo sapiens lung testis Homo sapiens cDNA clone EST6
2563	15562	28564	1.46	0.0E+00	AF245505.1	NT	Homo sapiens adipican mRNA, complete cds
2563	15562	28574	1.53	0.0E+00	BE536921.1	EST_HUMAN	601084738F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3451181 5'
2591	15569	28583	16.77	0.0E+00	AU143277.1	EST_HUMAN	AU143277 Y79AA1 Homo sapiens cDNA clone Y79AA1001873 5'
2591	15569	28584	16.77	0.0E+00	AU143277.1	EST_HUMAN	AU143277 Y79AA1 Homo sapiens cDNA clone Y79AA1001873 5'
2592	15590	28585	1.25	0.0E+00	BE292896.1	EST_HUMAN	601105312F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2887855 5'
2592	15590	28586	1.25	0.0E+00	BE292896.1	EST_HUMAN	601105312F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2887855 5'
2593	15591	28587	1.21	0.0E+00	BF223041.1	EST_HUMAN	7q27h12.x1 NCL CGAP_GC8 Homo sapiens cDNA clone IMAGE:3' similar to TRO00248 O00246 HYPOTHETICAL 9.3 KD PROTEIN
2596	15594	28589	9.36	0.0E+00	AF245505.1	NT	Homo sapiens adipican mRNA, complete cds
2622	15620	28613	1.31	0.0E+00	BE296613.1	EST_HUMAN	601173631F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3629159 5'
2640	15661	28638	1.96	0.0E+00	AB037836.1	NT	Homo sapiens mRNA for KIAA1415 protein, partial cds
2640	15661	28638	1.96	0.0E+00	AB037836.1	NT	Homo sapiens mRNA for KIAA1415 protein, partial cds
2641	16637		3.24	0.0E+00	BF513835.1	EST_HUMAN	U1-H-BW1-amp-f-12-Q-J1.s1 NCL CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3070631 3'
2646	15642	28641	1.69	0.0E+00	BF672818.1	EST_HUMAN	602152653F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4283612 5'
2655	15650	28649	1.23	0.0E+00	AB037742.1	NT	Homo sapiens mRNA for KIAA1321 protein, partial cds
2656	15651	28650	1.5	0.0E+00	AI571737.1	EST_HUMAN	In18508.x1 NCL CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2168055 3' similar to gb-L20877 CALCIUM-TRANSPORTING ATPASE PLASMA MEMBRANE, BRAIN ISOFORM 2 (HUMAN);
2657	15652	28651	2.67	0.0E+00	5032150	NT	Homo sapiens TATA box binding protein (TBP)-associated factor, RNA polymerase II, 1, 28kD (TAF2i) mRNA
2680	15656	28656	5.07	0.0E+00	AB037859.1	NT	Homo sapiens mRNA for KIAA1438 protein, partial cds
2681	15657	28657	1	0.0E+00	BE795445.1	EST_HUMAN	601590108F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944304 5'
2681	15657	28658	1	0.0E+00	BE795445.1	EST_HUMAN	601590108F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944304 5'
2684	15660	28659	0.92	0.0E+00	BE293328.1	EST_HUMAN	60114372F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:3061389 6'
2672	15668		4.1	0.0E+00	BE792472.1	EST_HUMAN	601584930F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3339222 5'
2674	15670	28669	1.29	0.0E+00	AB020710.1	NT	Homo sapiens mRNA for KIAA0903 protein, partial cds
2681	15676	28675	2.44	0.0E+00	4504886	NT	Homo sapiens IMP (inosine monophosphate) dehydrogenase 1 (IMPDH1) mRNA

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2693	15687		1.12	0.0E+00	U78027.1	NT	Homo sapiens Brutin's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44), and FTP3 (FTP3) genes, complete cds
2694	15688	28685	5.54	0.0E+00	AF173227.1	NT	Homo sapiens guanylate cyclase-activating protein 2 (GUCA1B) gene, exon 1
2698	15692	28686	1.1	0.0E+00	AB011108.1	NT	Homo sapiens mRNA for KIAA0336 protein, partial cds
2701	15695	28689	1.37	0.0E+00	AU133385.1	EST_HUMAN	AU133385 NT2RP4 Homo sapiens cDNA clone NT2RP4001984 5'
2702	15698	28690	1.57	0.0E+00	M59225.1	NT	Human bullous pemphigoid antigen (BPAG1) mRNA, complete cds
2704	15698	28692	1.02	0.0E+00	AU130403.1	EST_HUMAN	AU130403 NT2RP3 Homo sapiens cDNA clone NT2RP3000779 5'
2706	15698	28695	1.02	0.0E+00	AU130403.1	EST_HUMAN	AU130403 NT2RP3 Homo sapiens cDNA clone NT2RP3000779 5'
2710	15704	28700	0.9	0.0E+00	BF000018.1	EST_HUMAN	7n15n05.x1 NCL_CGAP_C016 Homo sapiens cDNA clone IMAGE:3316089 3'
2711	15705	28701	4.81	0.0E+00	BE383165.1	EST_HUMAN	601288714F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3628923 5'
2712	15708		3.28	0.0E+00	BE531263.1	EST_HUMAN	601278373F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3610287 5'
2749	15740	28735	0.92	0.0E+00	AB037732.1	NT	Homo sapiens mRNA for KIAA1311 protein, partial cds
2769	15761		6.42	0.0E+00	AA316723.1	EST_HUMAN	EST186414 HCC cell line (metastasis to liver in mouse) II Homo sapiens cDNA 5' end similar to ribosomal protein L29
2770	15762	28754	7.64	0.0E+00	BE794884.1	EST_HUMAN	60158925F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943591 5'
2771	15768	28763	2.99	0.0E+00	U38253.1	NT	Human beta-prime-adaptin (BAN22) gene, exon 5
2779	15770	28765	1.26	0.0E+00	7669517	NT	Homo sapiens neuregulin 1 (NRG1), transcript variant SMDF, mRNA
2780	15771	28766	1.41	0.0E+00	AF110763.1	NT	Homo sapiens skeletal muscle LIM-protein 1 (FHL1) gene, complete cds
2787	15777	28773	7.98	0.0E+00	BE796376.1	EST_HUMAN	60159159F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3945983 5'
2790	15804	28777	5.97	0.0E+00	BE563433.1	EST_HUMAN	601335485F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3688564 5'
2791	15780		1.22	0.0E+00	AV721647.1	EST_HUMAN	AV721647 HTB Homo sapiens cDNA clone HTBBYE09 5'
2793	15782	28780	2.43	0.0E+00	5174488	NT	Homo sapiens spermatogenesis associated PD1 (KIAA0757) mRNA
2793	15782	28781	2.43	0.0E+00	5174488	NT	Homo sapiens spermatogenesis associated PD1 (KIAA0757) mRNA
2794	15783	28782	1.18	0.0E+00	8923441	NT	Homo sapiens hypothetical protein FLJ20477 (FLJ20477), mRNA
2794	15783	28783	1.18	0.0E+00	8923441	NT	Homo sapiens hypothetical protein FLJ20477 (FLJ20477), mRNA
2796	15784	28784	2.92	0.0E+00	AF290195.1	NT	Homo sapiens hypertension-related calcium-regulated gene mRNA, complete cds
2796	15785		95.03	0.0E+00	AV651068.1	EST_HUMAN	AV651068 GLC Homo sapiens cDNA clone GLCCLD07 3'
2797	15786	28785	10.79	0.0E+00	BF377897.1	EST_HUMAN	CM1-TN0141-250900-439-508 jTN0141 Homo sapiens cDNA
2797	15786	28786	10.79	0.0E+00	BF377897.1	EST_HUMAN	CM1-TN0141-250900-439-508 jTN0141 Homo sapiens cDNA
2804	15793	28793	3.97	0.0E+00	BE747193.1	EST_HUMAN	601580903F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3928472 5'
2805	15784	28794	0.92	0.0E+00	N44974.1	EST_HUMAN	W35h10.r1 Soares melanocyte 2N0HM Homo sapiens cDNA clone IMAGE:273283 5' similar to PIR-A45773
2808	15787	28797	0.91	0.0E+00	BE176836.1	EST_HUMAN	A45773 keich protein, long form - fruit fly; RC4-HT0587-170300-012-d11 HT0587 Homo sapiens cDNA



Table 4

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2819	15808		1.67	0.0E+00	AL163201.2	NT	Homo sapiens chromosome 21 segment HS21C001
2820	15809	28807	3.82	0.0E+00	BF614110.1	EST_HUMAN	UI-H-BW7-aimw-e-07-q-U1.s1 NC1 CGAP Sub7 Homo sapiens cDNA clone IMAGE:3071340 3'
2825	15814		1.15	0.0E+00	4503098	NT	Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA
2832	15821	28816	5.52	0.0E+00	BF677694.1	EST_HUMAN	602085578F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249915 5'
2836	15825	28822	1.3	0.0E+00	7427522	NT	Homo sapiens protein tyrosine phosphatase, receptor type, T (PTPRT), mRNA
2839	15828	28824	7.64	0.0E+00	AV725534.1	EST_HUMAN	AV725534 HTC Homo sapiens cDNA clone HTCCCA03 5'
2839	15828	28825	7.84	0.0E+00	AV725534.1	EST_HUMAN	AV725534 HTC Homo sapiens cDNA clone HTCCCA03 5'
2841	15830		8.96	0.0E+00	AI879183.1	EST_HUMAN	ai56404.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2518663 5' similar to SW-R13A_HUMAN P40429 60S RIBOSOMAL PROTEIN L13A ;
2844	15833	28830	2.13	0.0E+00	BF630661.1	EST_HUMAN	602071957F1 NC1 CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4214678 5'
2845	15834	28831	8.8	0.0E+00	BE872768.1	EST_HUMAN	601450912F1 NIH_MGC_85 Homo sapiens cDNA clone IMAGE:3894642 5'
2847	15836	28832	1.34	0.0E+00	AU131494.1	EST_HUMAN	AU131494 NT2RP3 Homo sapiens cDNA clone NT2RP3002672 5'
2847	15836	28833	1.34	0.0E+00	AU131494.1	EST_HUMAN	AU131494 NT2RP3 Homo sapiens cDNA clone NT2RP3002672 5'
2848	15837	28834	22.38	0.0E+00	BE300344.1	EST_HUMAN	600944794F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2860806 5'
2848	15837	28835	22.38	0.0E+00	BE300344.1	EST_HUMAN	600944794F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2860806 5'
2853	13288	26213	2.74	0.0E+00	S78830.1	NT	glycoprotein D= Duffy group antigen [human, blood, Genomic DNA, 3088 nt]
2856	15843		1.76	0.0E+00	AB033281.1	NT	Homo sapiens BTROP2 mRNA [for F-box and WD-repeats protein isoform C, complete cds]
2862	13814	28743	1.68	0.0E+00	AF264750.1	NT	Homo sapiens ALR-like protein mRNA, partial cds
2862	13814	26744	1.68	0.0E+00	AF264750.1	NT	Homo sapiens ALR-like protein mRNA, partial cds
2867	14109	27047	4.3	0.0E+00	4503202	NT	Homo sapiens cytochrome P450, subfamily I (dioxin-inducible), polypeptide 1 (glaucoma 3, primary infantile) (CYP1B1) mRNA
2867	14108	27048	4.3	0.0E+00	4503202	NT	Homo sapiens cytochrome P450, subfamily I (dioxin-inducible), polypeptide 1 (glaucoma 3, primary infantile) (CYP1B1) mRNA
2882	15937	28842	3.76	0.0E+00	X85960.1	NT	H. sapiens serine hydroxymethyltransferase pseudogene
2883	15938		1.67	0.0E+00	AF068624.1	NT	Homo sapiens 5-aminolevulinate synthase 2 (ALAS2) gene, complete cds
2884	15939		1.48	0.0E+00	AB040960.1	NT	Homo sapiens mRNA for KIAA1527 protein, partial cds
2880	15944	28845	3.54	0.0E+00	AL163201.2	NT	Homo sapiens chromosome 21 segment HS21C001
2894	15949	28848	1.82	0.0E+00	M80902.1	NT	Human AHNAC nucleoprotein mRNA, 5' end
2897	15951		1.29	0.0E+00	X73428.1	NT	H. sapiens l33 gene for HLH type transcription factor
2898	15952		3.26	0.0E+00	AL103268.2	NT	Homo sapiens chromosome 21 segment HS21C088
2899	15953	28851	1.08	0.0E+00	7019584	NT	Homo sapiens zinc finger protein 221 (ZNF221), mRNA
2899	15953	28852	1.08	0.0E+00	7019584	NT	Homo sapiens zinc finger protein 221 (ZNF221), mRNA
2899	15953	28853	1.08	0.0E+00	7019584	NT	Homo sapiens zinc finger protein 221 (ZNF221), mRNA
2901	15956	28854	1.17	0.0E+00	M98478.1	NT	Human transglutaminase mRNA, complete cds

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2805	15958	28858	5.69	0.0E+00	D50657.1	NT	Homo sapiens gamma-cytoplasmic actin (ACTGP3) pseudogene
2905	15958	28859	5.69	0.0E+00	D50657.1	NT	Homo sapiens gamma-cytoplasmic actin (ACTGP3) pseudogene
2909	15962	28862	2.19	0.0E+00	AL098857.1	NT	Novel human mRNA from chromosome 1, which has similarities to BAT2 genes
2910	15963		5.24	0.0E+00	Y10658.1	NT	H. sapiens mRNA for nuclear DNA helicase II
2911	15964		1.16	0.0E+00	AF152303.1	NT	Homo sapiens protocadherin alpha C1 (PCDH-alpha-C1) mRNA, complete cds
2912	15965	28863	8.41	0.0E+00	4503470	NT	Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA
2912	15965	28864	8.41	0.0E+00	4503470	NT	Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA
2922	15975	28873	2.62	0.0E+00	4507280	NT	Homo sapiens serine/threonine kinase 9 (STK9) mRNA
2925	15978	28877	1.1	0.0E+00	AL047599.1	EST_HUMAN	DKFZp586G0621_r1 586 (synonym: huter) Homo sapiens cDNA clone DKFZp586G0621
2928	15979		1.27	0.0E+00	4503098	NT	Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA
2928	15982	28879	6.43	0.0E+00	BE081896.1	EST_HUMAN	QV2-BT0636-130400-138-H03 BT0636 Homo sapiens cDNA
2929	15982	28880	6.43	0.0E+00	BE081896.1	EST_HUMAN	QV2-BT0636-130400-138-H03 BT0636 Homo sapiens cDNA
2935	15988	28888	0.8	0.0E+00	6809918	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
2935	15988	28889	0.8	0.0E+00	6809918	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
2938	15991	28893	2.14	0.0E+00	AL163206.2	NT	Homo sapiens chromosome 21 segment HS21C008
2938	15991	28894	2.14	0.0E+00	AL163206.2	NT	Homo sapiens chromosome 21 segment HS21C008
2939	15992	28895	1.19	0.0E+00	AA215579.1	EST_HUMAN	z86b11.s1 NCL CGAP_GCB1 Homo sapiens cDNA clone IMAGE583517 3' similar to contains Alu repetitive element
2948	16000		4.1	0.0E+00	Y19210.1	NT	Homo sapiens hHb5 gene for hair keratin, exons 1 to 9
2951	16003	28905	1.27	0.0E+00	4758279	NT	Homo sapiens EphA4 (EPHA4) mRNA
2952	16004	28906	4.27	0.0E+00	4503470	NT	Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA
2954	16006	28908	1.12	0.0E+00	AF162338.1	NT	Homo sapiens protocadherin gamma C4 (PCDH-gamma-C4) mRNA, complete cds
2970	16022	28920	2.13	0.0E+00	AB033093.1	NT	Homo sapiens mRNA for KIAA1267 protein, partial cds
2970	16022	28921	2.13	0.0E+00	AB033093.1	NT	Homo sapiens mRNA for KIAA1267 protein, partial cds
2971	16023	28922	5.8	0.0E+00	AB040941.1	NT	Homo sapiens mRNA for KIAA1508 protein, partial cds
2971	16023	28923	5.8	0.0E+00	AB040941.1	NT	Homo sapiens mRNA for KIAA1508 protein, partial cds
2974	16026	28926	2.2	0.0E+00	7661803	NT	Homo sapiens KIAA0100 gene product (KIAA0100), mRNA
2974	16026	28927	2.2	0.0E+00	7661803	NT	Homo sapiens KIAA0100 gene product (KIAA0100), mRNA
2975	16027	28928	3.27	0.0E+00	5174874	NT	Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (lithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA
2975	16027	28929	3.27	0.0E+00	5174874	NT	Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (lithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA
2987	16039	28943	5.51	0.0E+00	4505084	NT	Homo sapiens melanoma antigen, family B, 4 (MAGEB4), mRNA
2987	16039	28944	5.51	0.0E+00	4505084	NT	Homo sapiens melanoma antigen, family B, 4 (MAGEB4), mRNA

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
2995	16047	28950	1.95	0.0E+00	4758827	NT	Homo sapiens neuroxin III (NRXN3) mRNA
2998	16050	28953	1.05	0.0E+00	X15306.1	NT	H. sapiens NF-H gene, exon 4
2998	16050	28954	1.05	0.0E+00	X15309.1	NT	H. sapiens NF-H gene, exon 4
3000	16052	28956	12.2	0.0E+00	AF106275.1	NT	Homo sapiens immunoglobulin-like transcript 1c variant 4 (ILT1c) gene, exon 6
3014	16036		1.88	0.0E+00	AI149880.1	EST_HUMAN	q14309.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1782809 3'
3022	16074	28976	0.87	0.0E+00	AF281074.1	NT	Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced
3022	16074	28977	0.87	0.0E+00	AF281074.1	NT	Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced
3023	16075	28978	1.39	0.0E+00	4506118	NT	Homo sapiens prospero-related homeobox 1 (PROX1) mRNA
3024	16076	28979	2.3	0.0E+00	AB004984.1	NT	Homo sapiens KIAA0737 gene product (KIAA0737), mRNA
3035	16087	28988	1.35	0.0E+00	7662273	NT	Homo sapiens KIAA0737 gene product (KIAA0737), mRNA
3036	16088	28989	1.04	0.0E+00	AW612526.1	EST_HUMAN	h103108.x1 NCI_CGAP_KD11 Homo sapiens cDNA clone IMAGE:2894055 3' similar to TR:060407 O60407
3038	16090	28991	2.25	0.0E+00	5729755	NT	PAC CLONE DJ1168011 FROM TP21-P22, COMPLETE SEQUENCE :
3038	16090	28992	2.25	0.0E+00	5729755	NT	Homo sapiens calcium channel, voltage-dependent, gamma subunit 3 (CACNG3), mRNA
3047	16099	29001	1.02	0.0E+00	AF114488.1	NT	Homo sapiens Intersectin short isoform (ITSN), complete cds
3047	16099	29002	1.02	0.0E+00	AF114488.1	NT	Homo sapiens Intersectin short isoform (ITSN), complete cds
3072	16124		0.81	0.0E+00	AL163248.2	NT	Homo sapiens chromosome 21 segment HS21C046
3074	16126	29024	1.27	0.0E+00	M74099.1	NT	Human displacement protein (GCAAT) mRNA
3084	16135	29031	0.74	0.0E+00	4506892	NT	Homo sapiens semenogelin I (SEMG1) mRNA
3091	16142		4.21	0.0E+00	AF195953.1	NT	Homo sapiens membrane-bound aminopeptidase P (XNPEP2) gene, complete cds
3094	16145	29042	3.83	0.0E+00	5579469	NT	Homo sapiens heat shock 70kD protein 1 (HSPA1A), mRNA
3094	16145	29043	3.83	0.0E+00	5579469	NT	Homo sapiens heat shock 70kD protein 1 (HSPA1A), mRNA
3096	16147		7.92	0.0E+00	AL359403.1	NT	Isform 2 of a novel human mRNA from chromosome 22
3101	16152	29048	2.38	0.0E+00	AF017433.1	NT	Homo sapiens putative transcription factor CR53 (CR53) mRNA, partial cds
							Homo sapiens transcription factor IGHM enhancer 3, JM11 protein, JM5 protein, T54 protein, JN10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophysin genes, complete cds; and L-type calcium channel a2
3104	16155		3.12	0.0E+00	AF198779.1	NT	Ig human gamma 1b chain C region (IgLC1b.1)
3125	16176	29071	4.46	0.0E+00	X03528.1	NT	Homo sapiens F-box protein FBL5 (FBL5) mRNA, complete cds
3131	16181		2	0.0E+00	AF199355.1	NT	Homo sapiens F-box protein FBL5 (FBL5) mRNA, complete cds
3135	16185	29078	1.33	0.0E+00	AF064569.1	NT	Homo sapiens melanoma-associated antigen (MAGE-C1) gene, complete cds
3153	16203	29094	1.58	0.0E+00	AF265208.1	NT	Homo sapiens SWI-SNF complex protein p270 mRNA, partial cds
3154	16204	29095	4.51	0.0E+00	AF149773.1	NT	Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3
3158	16208	29098	4.85	0.0E+00	7662139	NT	Homo sapiens KIAA0469 gene product (KIAA0469), mRNA
3159	16209	29099	1.35	0.0E+00	AF042075.1	NT	Homo sapiens olfactory receptor-like protein (OLFR 42B) gene, OLFR 42B-9110 allele, partial cds

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3185	16234	29129	3.4	0.0E+00	4826783	NT	Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNB1) mRNA
3193	16241	29136	21.09	0.0E+00	L20941.1	NT	Human ferritin heavy chain mRNA, complete cds
3197	16245	29140	1.13	0.0E+00	AB011121.1	NT	Homo sapiens mRNA for KIAA0549 protein, partial cds
3197	16245	29141	1.13	0.0E+00	AB011121.1	NT	Homo sapiens mRNA for KIAA0549 protein, partial cds
3203	16251	29147	3.74	0.0E+00	T94870.1	EST_HUMAN	ye3203.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:119453 3' similar to SP:529539
3218	16266	29165	1.35	0.0E+00	BF243338.1	EST_HUMAN	601878507F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4107433 5'
3220	16268	29168	1.42	0.0E+00	AJ968086.1	EST_HUMAN	wu12h10.x1 NCI CGAP_GC6 Homo sapiens cDNA clone IMAGE:2516803 3'
3225	16273	29173	5.95	0.0E+00	X98922.1	NT	H. sapiens mRNA for gamma-glutamyltransferase
3225	16273	29174	5.95	0.0E+00	X98922.1	NT	H. sapiens mRNA for gamma-glutamyltransferase
3236	16284	29186	1.49	0.0E+00	4758827	NT	Homo sapiens neuroxin III (NRXN3) mRNA
3238	16284	29187	1.46	0.0E+00	4758827	NT	Homo sapiens neuroxin III (NRXN3) mRNA
3243	16291	29184	11.35	0.0E+00	4504658	NT	Homo sapiens interleukin 1 receptor, type I (IL1R1) mRNA
3244	16292	29195	1.21	0.0E+00	4507720	NT	Homo sapiens titin (TTN) mRNA
3244	16292	29186	1.21	0.0E+00	4507720	NT	Homo sapiens titin (TTN) mRNA
3255	16303	29209	1.2	0.0E+00	AJ277892.1	NT	Homo sapiens partial TTN gene for titin
3253	16311	29215	1.21	0.0E+00	M28699.1	NT	Homo sapiens nucleolar phosphoprotein B23 (NPM1) mRNA, complete cds
3257	16315	29218	1.14	0.0E+00	4502098	NT	Homo sapiens solute carrier family 25 (mitochondrial carrier; adenine nucleotide translocator), member 5 (SLC25A5), nuclear gene encoding mitochondrial protein, mRNA
3273	16321	29226	1.09	0.0E+00	4758055	NT	Homo sapiens CREB binding protein (RUBINSTEIN-TAYBI SYNDROME) (CREBBP) mRNA
3273	16321	29227	1.09	0.0E+00	4758055	NT	Homo sapiens CREB binding protein (RUBINSTEIN-TAYBI SYNDROME) (CREBBP) mRNA
3275	16323	29228	6.85	0.0E+00	AA774783.1	EST_HUMAN	aa87b11.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:971133 3'
3283	16331	29236	1.91	0.0E+00	AF286598.1	NT	Homo sapiens angiotensin binding protein 1 mRNA, complete cds
3283	16331	29237	1.91	0.0E+00	AF286598.1	NT	Homo sapiens angiotensin binding protein 1 mRNA, complete cds
3283	16340	29242	1.6	0.0E+00	4557590	NT	Homo sapiens fibrillin 1 (Marfan syndrome) (FBN1) mRNA
3288	16345	29248	1.32	0.0E+00	4507720	NT	Homo sapiens titin (TTN) mRNA
3306	16353		1.73	0.0E+00	M65189.1	NT	Human connexin 43 processed pseudogene
3306	16356	29258	5.06	0.0E+00	AF055084.1	NT	Homo sapiens very large G-protein coupled receptor-1 (VLGR1) mRNA, complete cds
3319	18399	29258	1.76	0.0E+00	4502014	NT	Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA
3319	18399	29267	1.76	0.0E+00	4502014	NT	Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA
3333	16379	29279	1.77	0.0E+00	AF265208.1	NT	Homo sapiens SWI-SNF complex protein p270 mRNA, partial cds
3334	16380	29280	1.44	0.0E+00	8923624	NT	Homo sapiens hypothetical protein FLJ20695 (FLJ20695), mRNA
3346	16392	29292	1.43	0.0E+00	AF087925.1	NT	Homo sapiens olfactory receptor 17-93 (OR1E2) gene, complete cds

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3346	16392	29293	1.43	0.0E+00	AF087925.1	NT	Homo sapiens olfactory receptor 17-93 (OR1E2) gene, complete cds
3359	16403	29304	1.32	0.0E+00	4885312	NT	Homo sapiens G protein-coupled receptor 24 (GPR24), mRNA
3369	16413	29314	1.14	0.0E+00	AI589294.1	EST_HUMAN	U98108.x2 NCL CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2222635 3' similar to SW/RL11_RAT
3372	16416	29317	1.97	0.0E+00	AW095400.1	EST_HUMAN	P25121 Q05 RIBOSOMAL PROTEIN L11.; contains Alu repetitive element;
3380	16423	29325	2.8	0.0E+00	AF128893.1	EST_HUMAN	EST367470 IMAGE resequences; MAGD Homo sapiens cDNA
3381	16424	29326	2.6	0.0E+00	AF128893.1	NT	Homo sapiens telomerase reverse transcriptase (TERT) gene, exons 1-6
3381	16424	29327	1.11	0.0E+00	7657213	NT	Homo sapiens telomerase reverse transcriptase (TERT) gene, exons 1-6
3381	16424	29328	1.11	0.0E+00	7657213	NT	Homo sapiens telomerase reverse transcriptase (TERT) gene, exons 1-6
3383	16428	29330	1.79	0.0E+00	4502582	NT	Homo sapiens telomerase reverse transcriptase (TERT) gene, exons 1-6
3383	16428	29331	1.79	0.0E+00	4502582	NT	Homo sapiens telomerase reverse transcriptase (TERT) gene, exons 1-6
3387	16430	29334	13.95	0.0E+00	AF111163.1	NT	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3388	16432	29336	1.19	0.0E+00	AB040940.1	NT	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3396	16438	29342	0.89	0.0E+00	BE779039.1	EST_HUMAN	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3411	16453	29359	0.73	0.0E+00	AI632566.1	EST_HUMAN	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3456	16497	29401	2.31	0.0E+00	AU123664.1	EST_HUMAN	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3463	16503	29404	1.06	0.0E+00	73693436	NT	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3463	16503	29405	1.06	0.0E+00	73693436	NT	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3466	16506	29407	1.28	0.0E+00	7706239	NT	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3467	16507	29408	1.13	0.0E+00	AF211189.1	NT	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3472	16512	29423	1.17	0.0E+00	AW887015.1	EST_HUMAN	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3485	16524	29423	1.39	0.0E+00	7652401	NT	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3485	16524	29424	1.39	0.0E+00	7652401	NT	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3486	16525	29425	1.27	0.0E+00	4502398	NT	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3489	16528	29427	1.6	0.0E+00	5903067	NT	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3498	15771	29768	1.56	0.0E+00	AF110763.1	NT	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3503	16541	29440	2.61	0.0E+00	7657038	NT	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3506	16544	29444	5.94	0.0E+00	K02380.1	NT	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3508	16546	29446	1.46	0.0E+00	7427522	NT	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA
3511	16549	29449	1.18	0.0E+00	4557746	NT	Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Description
3515	16553	29453	3.95	0.0E+00	AI035159.1	EST_HUMAN	wp14410.x1 NCL CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2464819 3' similar to TR:O73634 O73634 NEURAL CELL ADHESION MOLECULE.
3515	16553	29454	3.95	0.0E+00	AI035159.1	EST_HUMAN	wp14410.x1 NCL CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2464819 3' similar to TR:O73634 O73634 NEURAL CELL ADHESION MOLECULE.
3519	16557	29459	1.41	0.0E+00	AJ278120.1	NT	NEURAL CELL ADHESION MOLECULE.
3520	16558	29460	0.97	0.0E+00	7706378	NT	Homo sapiens mRNA for putative ankyrin-repeat containing protein (ORF-1)
3531	16559	29473	1.58	0.0E+00	M14123.1	NT	Homo sapiens ASB-4 protein (LOC51666), mRNA
3536	16574	29478	6.96	0.0E+00	U43293.1	NT	Human endogenous retrovirus HERV-K10
3544	16582	29488	2.33	0.0E+00	AF045452.1	NT	Human MDS1A (AML1/MDS1 fusion), mRNA, partial cds
3544	16582	29488	2.33	0.0E+00	AF045452.1	NT	Homo sapiens cell-line KG1 transcriptional regulatory protein p54 mRNA, complete cds
3552	16590	29496	1.3	0.0E+00	AF231822.1	NT	Homo sapiens chromosome 21 unknown mRNA
3562	16599	29502	2.28	0.0E+00	BE304791.1	EST_HUMAN	601143853F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:3051373 5'
3562	16599	29503	2.28	0.0E+00	BE304791.1	EST_HUMAN	601143853F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:3051373 5'
3565	16602	29506	3.47	0.0E+00	4503648	NT	Homo sapiens coagulation factor IX (plasma thromboplastic component, Christmas disease, hemophilia B) (F9) mRNA
3566	16603	29507	1.28	0.0E+00	4828795	NT	Homo sapiens potassium voltage-gated channel, Isk-related family, member 2 (KCNE2) mRNA
3569	16606	29510	0.7	0.0E+00	O14887	SWISSPROT	TRANSCRIPTION REGULATOR PROTEIN BACH1 (BTB AND CNC HOMOLOG 1) (HA2303)
3574	16611	29514	0.76	0.0E+00	AI384007.1	EST_HUMAN	le35g12.x1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:2088742 3' similar to TR:O00498 O00498 MYASTHENIA GRAVIS AUTOANTIGEN GRAVIN
3577	16614	29517	1.06	0.0E+00	M10970.1	NT	Human endogenous retroviral DNA (4-1), complete retroviral segment
3594	16631	29535	0.96	0.0E+00	AB032979.1	NT	Homo sapiens mRNA for KIAA1153 protein, partial cds
3594	16631	29538	0.96	0.0E+00	AB032979.1	NT	Homo sapiens mRNA for KIAA1153 protein, partial cds
3601	16638	29542	0.85	0.0E+00	AV701869.1	EST_HUMAN	AV701869 ADB Homo sapiens cDNA clone ADBDAH06 5'
3602	16639	29543	1.19	0.0E+00	4508884	NT	Homo sapiens semenogelin II (SEMG2) mRNA
3611	16648	29549	1.28	0.0E+00	AL133204.1	NT	Novel human gene mapping to chromosome X
3615	16651	29552	1.24	0.0E+00	AB040909.1	NT	Homo sapiens mRNA for KIAA1476 protein, partial cds
3624	16650	29560	0.86	0.0E+00	8823087	NT	Homo sapiens hypothetical protein FLJ20080 (FLJ20080), mRNA
3635	16671	29568	1.52	0.0E+00	6997248	NT	Homo sapiens sal (Drosophila)-like 1 (SALL1), mRNA
3635	16671	29569	1.52	0.0E+00	6997248	NT	Homo sapiens sal (Drosophila)-like 1 (SALL1), mRNA
3636	16672		0.84	0.0E+00	AI081907.1	EST_HUMAN	ox77011.x1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:1682356 3' similar to WP:11984.4 CE13742
3643	16679		5.1	0.0E+00	AW852217.1	EST_HUMAN	QVO-CT0225-230300-199-e01 CT0225 Homo sapiens cDNA
3650	16686		0.85	0.0E+00	AF118846.1	NT	Homo sapiens gamma-glutamylcysteine synthetase (GLCLO) gene, partial cds
3651	16687	29581	9.04	0.0E+00	BF976393.1	EST_HUMAN	602084593F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4248596 5'

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3688	16869	29695	1.42	0.0E+00	AW693797.1	EST_HUMAN	QV0-DT0047-170200-123-g01 DT0047 Homo sapiens cDNA
3689	16713	29604	0.67	0.0E+00	BF672054.1	EST_HUMAN	602152486F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4293645 5'
3690	16713	29605	0.97	0.0E+00	BF672054.1	EST_HUMAN	602152486F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4293645 5'
3691	16714		1.15	0.0E+00	4826987	NT	Homo sapiens retinoblastoma-binding protein 2 (RBBP2), mRNA
3693	16716	29607	0.97	0.0E+00	AW694693.1	EST_HUMAN	hi8ag01.xt Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2979024 3'
3693	16716	29608	0.97	0.0E+00	AW694693.1	EST_HUMAN	hi8ag01.xt Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2979024 3'
3698	16721	29614	0.77	0.0E+00	7662319	NT	Homo sapiens KIAA0809 gene product (KIAA0809), mRNA
3716	16748	29635	2.47	0.0E+00	D87327.1	NT	Homo sapiens mRNA for G protein-coupled inward rectifier potassium channel, complete cds
3719	16751		2.78	0.0E+00	7669491	NT	Homo sapiens glyceraldehyde-3-phosphate dehydrogenase (GAPD), mRNA
3735	16767	29663	2.13	0.0E+00	AB028642.1	NT	Homo sapiens WAVE2 mRNA for WASP-family protein, complete cds
3738	16770	29655	3.74	0.0E+00	AF124250.1	NT	Homo sapiens SH2-containing protein Nsp2 mRNA, complete cds
3738	16770	29656	3.74	0.0E+00	AF124250.1	NT	Homo sapiens SH2-containing protein Nsp2 mRNA, complete cds
3744	16776	29664	1.64	0.0E+00	AA852743.1	EST_HUMAN	NHTBCae15g09f1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBCae15g09
3744	16776	29665	1.64	0.0E+00	AA852743.1	EST_HUMAN	NHTBCae15g09f1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBCae15g09
3747	16778	29667	1.19	0.0E+00	AB002331.1	NT	Human mRNA for KIAA0333 gene, partial cds
3747	16778	29668	1.19	0.0E+00	AB002331.1	NT	Human mRNA for KIAA0333 gene, partial cds
3751	16783	29672	2.09	0.0E+00	5728928	NT	Homo sapiens matrix metalloproteinase 24 (membrane-inserted) (MMP24), mRNA
3753	16785	29674	1.76	0.0E+00	AB018339.1	NT	Homo sapiens mRNA for KIAA0790 protein, partial cds
3759	16788	29677	0.7	0.0E+00	AB020717.1	NT	Homo sapiens mRNA for KIAA0910 protein, partial cds
3759	16788	29678	0.7	0.0E+00	AB020717.1	NT	Homo sapiens mRNA for KIAA0910 protein, partial cds
3769	16801	29687	5.07	0.0E+00	AW298134.1	EST_HUMAN	UI-H-BW0-qjs-e-12-0-UI-st NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2733022 3'
3769	16801	29688	5.07	0.0E+00	AW298134.1	EST_HUMAN	UI-H-BW0-qjs-e-12-0-UI-st NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2733022 3'
3792	16823	29710	1.38	0.0E+00	AB004630.1	NT	Human gene for Type XIX collagen alpha chain, exon 6
3793	16824	29711	1.18	0.0E+00	AA463659.1	EST_HUMAN	aa05g01.r1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:812496 5' similar to
3797	16828	29715	0.98	0.0E+00	AB020710.1	NT	SW_KRB4_SHEEP_P02445 KERATIN, HIGH-SULFUR MATRIX PROTEIN, IIIB4. [1]:
3800	16831	29717	4.63	0.0E+00	7657468	NT	Homo sapiens mRNA for KIAA0903 protein, partial cds
3810	16840	29727	0.72	0.0E+00	AB037835.1	NT	Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA
3823	16853	29737	6.99	0.0E+00	7662183	NT	Homo sapiens mRNA for KIAA1414 protein, partial cds
3827	16857	29740	6.94	0.0E+00	7662183	NT	Homo sapiens KIAA0568 gene product (KIAA0568), mRNA
3834	16863	29745	1	0.0E+00	4508718	NT	Homo sapiens ribosomal protein S2 (RPS2), mRNA
3834	16863	29746	1	0.0E+00	7657065	NT	Homo sapiens v-ets avian erythroblastosis virus E26 oncogene related (ERG), mRNA
3834	16863	29746	1	0.0E+00	7657065	NT	Homo sapiens v-ets avian erythroblastosis virus E26 oncogene related (ERG), mRNA

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3837	16836	28749	1.67	0.0E+00	450559.1	NT	Homo sapiens plasminogen activator inhibitor, type II (arginine-serpin) (PAI2) mRNA
3868	16937	28761	3.66	0.0E+00	7691867	NT	Homo sapiens KIAA0022 gene product (KIAA0022), mRNA
3868	16937	28762	3.66	0.0E+00	7691867	NT	Homo sapiens KIAA0022 gene product (KIAA0022), mRNA
3880	16919	28796	1.05	0.0E+00	AF145712.1	NT	Homo sapiens soluble neuropilin-1 mRNA, complete cds
3892	16921		0.66	0.0E+00	AF106668.1	NT	Homo sapiens DNA mismatch repair protein (MLH3) gene, complete cds
3893	16922	28798	2.87	0.0E+00	AF179733.1	NT	Pan troglodytes olfactory receptor (PTR208) gene, partial cds
3897	16926	28803	2.12	0.0E+00	7657468	NT	Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA
3897	16926	28804	2.12	0.0E+00	7657468	NT	Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA
3902	16931	28810	1.04	0.0E+00	10181139	NT	Mus musculus juncophilin 1 (Jp1-pending), mRNA
3905	16934	28813	1.49	0.0E+00	AF127851.1	NT	Gorilla gorilla olfactory receptor (GGO71) gene, partial cds
3905	16934	28814	1.49	0.0E+00	AF127851.1	NT	Gorilla gorilla olfactory receptor (GGO71) gene, partial cds
3906	16933	28815	1.05	0.0E+00	AI377699.1	EST_HUMAN	tc62f10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2091307 3'
3907	16936	28816	1.23	0.0E+00	4753198	NT	Homo sapiens desmoplakin (DPI, DPL1) (DSP) mRNA
3909	16938	28817	4.06	0.0E+00	S78685.1	NT	Homo sapiens ATP-sensitive inwardly rectifying K-channel subunit (KCNJ6/IR1) gene, complete cds
3910	16939	28818	2.43	0.0E+00	7710148	NT	Homo sapiens methyl CpG binding protein 2 (MECP2), mRNA
3911	16940	28819	1.43	0.0E+00	7662183	NT	Homo sapiens KIAA0569 gene product (KIAA0569), mRNA
3916	16944	28823	1.13	0.0E+00	6912735	NT	Homo sapiens transient receptor potential channel 6 (TRPC6), mRNA
3921	16949	28831	8.56	0.0E+00	4503178	NT	Homo sapiens chromosome X open reading frame 5 (CXORF5) mRNA
3921	16949	28832	8.56	0.0E+00	4503178	NT	Homo sapiens chromosome X open reading frame 5 (CXORF5) mRNA
3923	16951	28835	4.66	0.0E+00	U00412.1	NT	Human zinc finger protein ZNF134 mRNA, complete cds
3924	16952	28836	0.98	0.0E+00	AF114488.1	NT	Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds
3927	16955	28838	1.44	0.0E+00	4826783	NT	Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNB1) mRNA
3930	16958	28841	1.43	0.0E+00	AF012615.1	NT	Homo sapiens familial mental retardation protein 2 (FMR2) gene, exon 11
3931	16959	28842	1.76	0.0E+00	4759171	NT	Homo sapiens SC35-interacting protein 1 (SRRP129), mRNA
3934	16962	28845	0.73	0.0E+00	AF099117.1	NT	Homo sapiens amphiphysin gene, partial cds
3944	16972	28853	2.01	0.0E+00	AI864727.1	EST_HUMAN	wk01101.x1 NCI CGAP_Lym12 Homo sapiens cDNA clone IMAGE:2411065 3' similar to TR:O43340
3945	16973	28856	1.34	0.0E+00	AL163248.2	NT	O43340 R28830_2, contains element PTR7 repetitive element;
3948	16976	28860	3.87	0.0E+00	4506742	NT	Homo sapiens chromosome 21 segment HS21C048
3951	16978	28863	1.68	0.0E+00	AL040338.1	EST_HUMAN	Homo sapiens ribosomal protein S8 (RPS8), mRNA
3957	16985	28870	1.19	0.0E+00	6005687	NT	DKFZp434N0413.1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N0413 5'
3957	16985	28871	1.19	0.0E+00	6005687	NT	Homo sapiens AP1 gamma subunit binding protein 1 (AP1GBP1), mRNA
3957	16985	28871	1.19	0.0E+00	6005687	NT	Homo sapiens AP1 gamma subunit binding protein 1 (AP1GBP1), mRNA



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Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
3959	16987	29873	3.54	0.0E+00	4504138	NT	Homo sapiens glutamate receptor, metabotropic 3 (GRM3) mRNA
3961	16989		2.62	0.0E+00	4505078	NT	Homo sapiens melanoma antigen, family B, 1 (MAGEB1) mRNA
3965	16993	29877	0.9	0.0E+00	AF149412.1	NT	Homo sapiens HBP17 heparin-binding and FGF-binding protein gene, complete cds
3982	17010	29898	1.78	0.0E+00	4585642	NT	Homo sapiens zinc finger protein (KIAA0412) mRNA
3989	17016	29905	1.4	0.0E+00	BF365235.1	EST_HUMAN	RC3-H10860-170800-01-1-12 Homo sapiens cDNA
3991	17018	29907	1.25	0.0E+00	AW898221.1	EST_HUMAN	MXRA5 Human matrix tissue expression library Homo sapiens cDNA clone Incyte 1986726 similar to MXRA5 Matrix remodelling associated gene 5
3991	17018	29908	1.25	0.0E+00	AW898221.1	EST_HUMAN	MXRA5 Human matrix tissue expression library Homo sapiens cDNA clone Incyte 1986726 similar to MXRA5 Matrix remodelling associated gene 5
3999	17026	29915	3.2	0.0E+00	AF129533.1	NT	Homo sapiens F-box protein FB3b (FBL3B) mRNA, partial cds
4002	17029	29918	1.12	0.0E+00	AW451306.1	EST_HUMAN	UI-HB13-alt-g-07-Q-UI.s1 NCL CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2738949 3'
4003	17030	29919	1	0.0E+00	U86281.1	NT	Homo sapiens olfactory receptor (OR7-141) gene, partial cds
4003	17030	29920	1	0.0E+00	U86281.1	NT	Homo sapiens olfactory receptor (OR7-141) gene, partial cds
4007	17034	29924	4.98	0.0E+00	BE378602.1	EST_HUMAN	601236505F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608800 5'
4009	17036	29926	0.76	0.0E+00	BE313146.1	EST_HUMAN	601153727F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3509743 5'
4017	17044	29934	1.13	0.0E+00	AW580740.1	EST_HUMAN	PM3-LT0031-100100-003+09 L10031 Homo sapiens cDNA
4053	17050	29964	0.72	0.0E+00	U10991.1	NT	Human G2 protein mRNA, partial cds
4053	17050	29966	0.72	0.0E+00	U10991.1	NT	Human G2 protein mRNA, partial cds
4053	17050	29966	0.72	0.0E+00	U10991.1	NT	Human G2 protein mRNA, partial cds
4060	17066	29968	4.9	0.0E+00	AF116195.1	NT	Homo sapiens cancer-testis antigen CT10 (CT10) gene, complete cds
4060	17066	29970	4.9	0.0E+00	AF116195.1	NT	Homo sapiens cancer-testis antigen CT10 (CT10) gene, complete cds
4071	17097		3.41	0.0E+00	M23910.1	NT	Human MHC class II lymphocyte antigen DPw4-beta-2 pseudogene, exon 2
4073	17099		7.21	0.0E+00	AL163303.2	NT	Homo sapiens chromosome 21 segment HS21C103
4083	17108	29986	3.75	0.0E+00	AL163284.2	NT	Homo sapiens chromosome 21 segment HS21C084
4091	17116	29994	1.78	0.0E+00	AL163288.2	NT	Homo sapiens chromosome 21 segment HS21C068
4095	17120	29997	1.18	0.0E+00	S78653.1	NT	mitg=mas-related [human, Genomic, 2416 nt]
4104	17129		9.34	0.0E+00	4503470	NT	Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA
4111	17134	30009	0.99	0.0E+00	U09366.1	NT	Human zinc finger protein ZNF133
4130	17152	30029	4.48	0.0E+00	AB015610.1	NT	Chlorococcus aethiops mRNA for ribosomal protein S4X, complete cds
4140	17151		4.72	0.0E+00	AJ238617.1	NT	Homo sapiens mRNA for UGA suppressor tRNA-associated antigenic protein (tRNA48 gene)
4152	17173	30046	1.14	0.0E+00	AB002314.2	NT	Homo sapiens mRNA for KIAA0316 protein, partial cds
4153	17174	30046	1.43	0.0E+00	AL163203.2	NT	Homo sapiens chromosome 21 segment HS21C003
4154	17175	30047	1.85	0.0E+00	AJ272726.1	NT	Homo sapiens mRNA for rapa-2 (rapa gene)
4154	17175	30048	1.85	0.0E+00	AJ272726.1	NT	Homo sapiens mRNA for rapa-2 (rapa gene)

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4160	17191	30053	8.32	0.0E+00	5032026	NT	Homo sapiens retinoblastoma-binding protein 4 (RBBP4) mRNA
4160	17181	30054	8.32	0.0E+00	5032026	NT	Homo sapiens retinoblastoma-binding protein 4 (RBBP4) mRNA
4172	17193	30065	0.7	0.0E+00	4503914	NT	Homo sapiens phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide synthetase, phosphoribosylamimidazole synthetase (GART) mRNA
4178	17198	30068	7.7	0.0E+00	4883308	NT	Homo sapiens G protein-coupled receptor 21 (GPR21) mRNA
4179	17169	30069	1.38	0.0E+00	AB006625.1	NT	Homo sapiens mRNA for KIAA0287 gene, partial cds
4183	17203	30071	7.92	0.0E+00	11419297	NT	Homo sapiens IMP (inosine monophosphate) dehydrogenase 1 (IMPDH1) mRNA
4184	17204	30072	2.05	0.0E+00	AL096857.1	NT	Novel human mRNA from chromosome 1, which has similarities to BAT2 genes
4185	17205		1.07	0.0E+00	AA018975.1	EST_HUMAN	ze55e09.r1 Scores retina N2b4-HR Homo sapiens cDNA clone IMAGE:362920 5' similar to contains Alu repetitive element;
4193	17213	30080	3.09	0.0E+00	AF165527.1	NT	Homo sapiens DGCR8 (DGCR8) mRNA, complete cds
4194	17214		0.08	0.0E+00	AW880878.1	EST_HUMAN	OVG-OT0033-070300-152-g12 OT0033 Homo sapiens cDNA
4201	18404	30085	1.05	0.0E+00	AF157476.1	NT	Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds
4205	14200	27137	0.92	0.0E+00	4826947	NT	Homo sapiens protein kinase, X-linked (PRKX) mRNA
4205	14200	27138	0.92	0.0E+00	4826947	NT	Homo sapiens protein kinase, X-linked (PRKX) mRNA
4211	17228	30095	1.28	0.0E+00	5901905	NT	Homo sapiens butyrophilin, subfamily 3, member A2 (BTN3A2) mRNA
4213	17230	30098	0.89	0.0E+00	4503854	NT	Homo sapiens GA-binding protein transcription factor, alpha subunit (GABPA) mRNA
4213	17230	30098	0.89	0.0E+00	4503854	NT	Homo sapiens GA-binding protein transcription factor, alpha subunit (GABPA) mRNA
4216	16839	29543	0.76	0.0E+00	4500884	NT	Homo sapiens semenogelin II (SEMG2) mRNA
4218	17234	30102	1.19	0.0E+00	8922391	NT	Homo sapiens hypothetical protein FLJ10379 (FLJ10379) mRNA
4218	17234	30103	1.19	0.0E+00	8922391	NT	Homo sapiens hypothetical protein FLJ10379 (FLJ10379) mRNA
4224	17240	30107	0.77	0.0E+00	AB020702.1	NT	Homo sapiens mRNA for KIAA0895 protein, partial cds
4232	17246	30116	5.7	0.0E+00	AJ982697.1	EST_HUMAN	Homo sapiens mRNA for KIAA0895 protein, partial cds
4232	17248	30117	5.7	0.0E+00	AJ982697.1	EST_HUMAN	wu04404.x1 NCI CGAP GC6 Homo sapiens cDNA clone IMAGE:2816975 3'
4234	17250	30119	0.95	0.0E+00	BE184856.1	EST_HUMAN	wu04404.x1 NCI CGAP GC6 Homo sapiens cDNA clone IMAGE:2816975 3'
4234	17250	30120	0.95	0.0E+00	BE184856.1	EST_HUMAN	MR1-HT0707-100500-001-a02 HT0707 Homo sapiens cDNA
4238	17254		2.9	0.0E+00	BE274217.1	EST_HUMAN	MR1-HT0707-100500-001-a02 HT0707 Homo sapiens cDNA
4246	17252	30128	2.49	0.0E+00	5729725	NT	801120778F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2987690 5'
4253	17269		5.17	0.0E+00	AW675399.1	EST_HUMAN	Homo sapiens nuclear receptor coactivator 3 (NCOA3) mRNA
4258	17274	30142	1.12	0.0E+00	AW408788.1	EST_HUMAN	ba51f04.x1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2800095 3' similar to SW:TH12_BOVIN Q95108 MITOCHONDRIAL THIOREDOXIN PRECURSOR;
4259	17275	30143	2	0.0E+00	8922466	NT	UHF-BM0-adv-c-02-011 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3063147 5'
4259	17275	30144	2	0.0E+00	8922466	NT	Homo sapiens hypothetical protein FLJ10498 (FLJ10498) mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4267	17283		2.23	0.0E+00	6174632	NT	Homo sapiens polycystic kidney disease (polycystin) and REJ (sperm receptor for egg jelly, sea urchin homolog)-like (PKDREJ) mRNA
4280	17294	30160	1.26	0.0E+00	AB037739.1	NT	Homo sapiens mRNA for KIAA1318 protein, partial cds
4288	17302	30169	13.81	0.0E+00	AA401438.1	EST_HUMAN	zu68h07.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:743197 3' similar to contains Alu repetitive element; contains element MER35 repetitive element
4288	17302	30170	13.81	0.0E+00	AA401438.1	EST_HUMAN	zu68h07.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:743197 3' similar to contains Alu repetitive element; contains element MER35 repetitive element
4291	17305	30174	1.04	0.0E+00	AF157478.1	NT	Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds
4303	17317	30184	1.01	0.0E+00	4507720	NT	Homo sapiens titin (TTN) mRNA
4303	17317	30185	1.01	0.0E+00	4507720	NT	Homo sapiens titin (TTN) mRNA
4321	17336	30168	1.12	0.0E+00	4758169	NT	Homo sapiens desmoplakin (DPI, DPLI) (DSP) mRNA
4321	17335	30169	1.12	0.0E+00	4758169	NT	Homo sapiens desmoplakin (DPI, DPLI) (DSP) mRNA
4330	17344		0.81	0.0E+00	AL163303.2	NT	Homo sapiens chromosome 21 segment HS21C103
4358	17370	30234	1.47	0.0E+00	AJ003145.1	NT	Homo sapiens mRNA for olfactory receptor protein, pseudogene
4372	17386	30250	11.78	0.0E+00	J02610.1	NT	Human apolipoprotein B-100 mRNA, complete cds
4377	17391	30254	1.1	0.0E+00	AB026898.1	NT	Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds)
4377	17391	30255	1.1	0.0E+00	AB026898.1	NT	Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds)
4385	17399	30287	0.72	0.0E+00	AW936889.1	EST_HUMAN	PM2.DT0023-080300-004-a08 DT0023 Homo sapiens cDNA
4393	16438	20342	0.97	0.0E+00	BE779039.1	EST_HUMAN	601464995F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3898246 5'
4398	17411	30277	5.52	0.0E+00	AF174590.1	NT	Homo sapiens F-box protein Fbx4 (FBL4) mRNA, partial cds
4406	17418	30282	0.88	0.0E+00	6806918	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
4406	17418	30283	0.88	0.0E+00	6806918	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
4407	17419		3.18	0.0E+00	AI189844.1	EST_HUMAN	q2305.x1 Soares_placenta_8w9weeks_2NBHP8108W Homo sapiens cDNA clone IMAGE:1724579 3' similar to contains MER20 b2 MER20 repetitive element
4411	17422		5.96	0.0E+00	U14520.1	NT	Human GBFA3 (Gbia3) gene, partial cds
4415	17426	30288	0.78	0.0E+00	5174574	NT	Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLL14) mRNA
4425	17436	30296	1.18	0.0E+00	4505546	NT	Homo sapiens proprotein convertase subtilisin/kexin type 2 (PCSK2) mRNA
4432	17443	30303	0.67	0.0E+00	6563384	NT	Homo sapiens protein kinase C, nu (PRKCN), mRNA
4432	17443	30304	0.67	0.0E+00	6563384	NT	Homo sapiens protein kinase C, nu (PRKCN), mRNA
4439	17450	30310	1.11	0.0E+00	U10991.1	NT	Human G2 protein mRNA, partial cds
4439	17450	30311	1.11	0.0E+00	U10991.1	NT	Human G2 protein mRNA, partial cds

Table 4

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4450	17480	30317	10.93	0.0E+00	8912281	NT	Homo sapiens COMPLEMENT COMPONENT C1q RECEPTOR (C1QR), mRNA
4468	17479		1.39	0.0E+00	AF153047.2	NT	Homo sapiens gap junction protein connexin-36 (CX36) gene, complete cds
4477	17489	30347	5.28	0.0E+00	L14561.1	NT	Homo sapiens plasma membrane calcium ATPase isoform 1 (ATP2B1) gene, alternative splice products, partial cds
4481	17492	30352	3.62	0.0E+00	Z80780.1	NT	H. sapiens H2B/h gene
4481	17492	30353	3.62	0.0E+00	Z80780.1	NT	H. sapiens H2B/h gene
4482	17493	30354	0.95	0.0E+00	AW166933.1	EST_HUMAN	xc68e10.x1 NCL CGAP U14 Homo sapiens cDNA clone IMAGE:2633514 3' similar to TR:P07365 P07365
4488	17499	30360	0.95	0.0E+00	X60483.1	NT	ZINC FINGER PROTEIN 64;
4488	17499	30361	0.95	0.0E+00	X60483.1	NT	H. sapiens H4/d gene for H4 histone
4493	17503	30367	10.13	0.0E+00	7662091	NT	H. sapiens H4/d gene for H4 histone
4493	17503	30368	10.13	0.0E+00	7662091	NT	Homo sapiens KIAA0390 gene product (KIAA0390), mRNA
4504	17514	30381	14.29	0.0E+00	4883126	NT	Homo sapiens KIAA0390 gene product (KIAA0390), mRNA
4505	17515	30382	0.93	0.0E+00	AJ271736.1	NT	Homo sapiens caudal type homeo box transcription factor 4 (CDX4), mRNA
4508	17518	30384	1.2	0.0E+00	AB037781.1	NT	Homo sapiens Xq pseudautosomal region, segment 2/2
4551	17560		6.89	0.0E+00	AF195953.1	NT	Homo sapiens mRNA for KIAA1350 protein, partial cds
4558	17567	30426	1.22	0.0E+00	AJ249765.1	NT	Homo sapiens membrane-bound aminopeptidase P (XNPEP2) gene, complete cds
4558	17567	30428	1.22	0.0E+00	AJ249765.1	NT	Homo sapiens ACTN2 gene for alpha-Actinin 2, exon 10
4562	17570	30432	0.88	0.0E+00	W26179.1	EST_HUMAN	Homo sapiens ACTN2 gene for alpha-Actinin 2, exon 10
4562	17570	30433	0.88	0.0E+00	W26179.1	EST_HUMAN	24q7 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA
4580	17588		1.97	0.0E+00	AF200629.1	NT	Homo sapiens HPS1 gene, intron 5
4600	17608	30465	0.74	0.0E+00	T10233.1	EST_HUMAN	seq1328 b4HB3MA C08-HAP-F1 Homo sapiens cDNA clone b4HB3MA-C08-HAP-F1205 5'
4600	17608	30466	0.74	0.0E+00	T10233.1	EST_HUMAN	seq1328 b4HB3MA C08-HAP-F1 Homo sapiens cDNA clone b4HB3MA-C08-HAP-F1205 5'
4622	17629	30493	3.15	0.0E+00	AW084984.1	EST_HUMAN	xc68e08.x1 NCL CGAP Eso2 Homo sapiens cDNA clone IMAGE:2689446 3' similar to SW:AHNK_HUMAN
4624	18406		1.38	0.0E+00	8051619	NT	Q08666 NEUROBLAST DIFFERENTIATION ASSOCIATED PROTEIN AHNAK ;
4626	17632	30496	1.11	0.0E+00	AF016050.1	NT	Homo sapiens LIM domain kinase 2 (LIMK2), transcript variant 2a, mRNA
4631	17637		11.42	0.0E+00	AL163207.2	NT	Homo sapiens vascular endothelial cell growth factor, 165 receptor/neuropilin (VEGF165) mRNA, complete cds
4639	17645	30509	0.97	0.0E+00	4739467	NT	Homo sapiens chromosome 21 segment HS21C007
4640	17646	30510	2.81	0.0E+00	AF108830.1	NT	Homo sapiens G protein-coupled receptor 50 (GPR50) mRNA
4646	17652	30517	1.03	0.0E+00	AF111163.1	NT	Homo sapiens serine-threonine protein kinase (MNBH) mRNA, complete cds
4646	17652	30518	1.03	0.0E+00	AF111163.1	NT	Homo sapiens pyrin (MEFV) gene, complete cds
4655	18407	30528	3.69	0.0E+00	6005973	NT	Homo sapiens zinc finger protein 195 (ZNF195), mRNA

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4860	17666	30533	6.72	0.0E+00	AF208161.1	NT	Homo sapiens synovial precursor, mRNA, complete cds
4865	17670	30540	1.35	0.0E+00	AF152337.1	NT	Homo sapiens protocadherin gamma C3 (PCDH-gamma-C3) mRNA, complete cds
4878	17683	30551	4.97	0.0E+00	4503470	NT	Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA
4886	17691	30558	0.8	0.0E+00	4505016	NT	Homo sapiens low density lipoprotein receptor-related protein 6 (LRP6) mRNA, and translated products
4890	17695	30561	1.31	0.0E+00	4503098	NT	Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA
4893	17698	30564	1.24	0.0E+00	4502556	NT	Homo sapiens calcium/calmodulin-dependent protein kinase IV (CAMK4) mRNA
4898	17703	30567	3.12	0.0E+00	L35485.1	NT	Homo sapiens iduronate sulphate sulphatase (IDS) gene, complete cds
4700	17705	30568	14.56	0.0E+00	7662091	NT	Homo sapiens KIAA0390 gene product (KIAA0390), mRNA
4701	17705	30568	14.56	0.0E+00	7662091	NT	Homo sapiens KIAA0390 gene product (KIAA0390), mRNA
4712	17717	30570	1.16	0.0E+00	AF143314.1	NT	Homo sapiens PTEN (PTEN) gene, exons 3 through 5
4715	17720	30582	13.35	0.0E+00	AJ245418.1	NT	Homo sapiens mRNA for G7c protein (G7c gene located in the class III region of the major histocompatibility complex)
4715	17720	30583	13.35	0.0E+00	AJ245418.1	NT	Homo sapiens mRNA for G7c protein (G7c gene located in the class III region of the major histocompatibility complex)
4737	17742		1.97	0.0E+00	AA174072.1	EST_HUMAN	zp18g08.s1 Stralagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:609854 3'
4739	17744		2.36	0.0E+00	7667410	NT	Homo sapiens odz (odd Oz/ten-m; Drosophila) homolog 1 (ODZ1), mRNA
4741	17748		2.91	0.0E+00	AL163284.2	NT	Homo sapiens chromosome 21 segment HS21C084
4743	17748		2.24	0.0E+00	AB037521.1	NT	Homo sapiens chromosome 21 segment HS21C100
4745	17750	30608	1.12	0.0E+00	AF195658.1	NT	Homo sapiens gene for natriuretic protein, partial cds
4751	17756	30616	1.08	0.0E+00	AL162331.1	NT	Homo sapiens DNA mismatch repair protein (MLH3) gene, complete cds
4753	17758	30618	4.94	0.0E+00	4537887	NT	Novel human gene mapping to chromosome 1
4753	17758	30619	4.94	0.0E+00	4537887	NT	Homo sapiens keratin 18 (KRT18) mRNA
4754	17759	30620	1.01	0.0E+00	AF153819.1	NT	Homo sapiens inwardly-rectifying potassium channel Kir2.1 (KCNJ2) gene, exon 2 and complete cds
4754	17759	30621	1.01	0.0E+00	AF153819.1	NT	Homo sapiens inwardly-rectifying potassium channel Kir2.1 (KCNJ2) gene, exon 2 and complete cds
4763	17768	30632	0.99	0.0E+00	AB028970.1	NT	Homo sapiens mRNA for KIAA1047 protein, partial cds
4763	17768	30633	0.99	0.0E+00	AB028970.1	NT	Homo sapiens mRNA for KIAA1047 protein, partial cds
4769	17774	30641	23.91	0.0E+00	Y16880.1	NT	Human endogenous retrovirus type K (HERV-K), gag, pol and env genes
4777	17782	30652	1	0.0E+00	BE081527.1	EST_HUMAN	QV2-BT0635-160400-142-H05 BT0635 Homo sapiens cDNA
4782	17787		2.09	0.0E+00	AF086641.1	NT	Homo sapiens truncated tenascin XB (TNXB) gene, partial cds and TNXA gene recombination breakpoint (region)

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4790	17794	30661	2.6	0.0E+00	AB037820.1	NT	Homo sapiens mRNA for KIAA1399 protein, partial cds
4790	17794	30662	2.6	0.0E+00	AB037820.1	NT	Homo sapiens mRNA for KIAA1399 protein, partial cds
4791	17795	30663	1.81	0.0E+00	M74099.1	NT	Human displacement protein (CCAAT) mRNA
4796	17799	30666	2.27	0.0E+00	6453812	NT	Homo sapiens butyrophilin, subfamily 2, member A2 (BTN2A2), mRNA
4796	17799	30667	2.27	0.0E+00	6453812	NT	Homo sapiens butyrophilin, subfamily 2, member A2 (BTN2A2), mRNA
4797	13245	26163	1.04	0.0E+00	T56945.1	EST_HUMAN	ye83g04.r2 Stratagene fetal spleen (#837205) Homo sapiens cDNA clone IMAGE:68310 5'
4797	13245	26164	1.04	0.0E+00	T56945.1	EST_HUMAN	ye83g04.r2 Stratagene fetal spleen (#837205) Homo sapiens cDNA clone IMAGE:68310 5'
4804	17805	30671	0.77	0.0E+00	BE390050.1	EST_HUMAN	601285248F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3607067 5'
4821	17822	30691	1.11	0.0E+00	U56651.1	NT	Mus musculus neurophilin 1 (Nph1) gene, large exon and 3' end of the intron, and partial cds
4826	17827	30695	9.22	0.0E+00	M80902.1	NT	Human AHNK nucleoprotein mRNA, 5' end
4829	17830	30698	88.34	0.0E+00	M69197.1	NT	Human haptoglobin and haptoglobin-related protein (HP and HPR) genes, complete cds
4829	17830	30699	88.34	0.0E+00	M69197.1	NT	Human haptoglobin and haptoglobin-related protein (HP and HPR) genes, complete cds
4833	17834	30704	1.08	0.0E+00	AF184110.1	NT	Homo sapiens cyclophilin-related protein (NKTR) gene, complete cds
4836	17837	30706	1.85	0.0E+00	7562181	NT	Homo sapiens KIAA0563 gene product (KIAA0563), mRNA
4847	17848	30716	1.06	0.0E+00	AL096957.1	NT	Novel human mRNA from chromosome 1, which has similarities to BAT2 genes
4855	17857		1.02	0.0E+00	X69487.1	NT	Human CYP2D7AP pseudogene for cytochrome P450 2D6
4872	17871	30735	1.89	0.0E+00	AF020801.1	NT	Homo sapiens alpha-3 type IX collagen (COL9A3) gene, promoter region, and exons 1-28
4875	17874	30738	0.97	0.0E+00	6677700	NT	Homo sapiens G-protein coupled receptor (RE2), mRNA
4875	17874	30739	0.97	0.0E+00	6677700	NT	Homo sapiens G-protein coupled receptor (RE2), mRNA
4877	17876	30741	0.86	0.0E+00	7019320	NT	Homo sapiens proteinx0008 (AD013), mRNA
4877	17878	30742	0.86	0.0E+00	7019320	NT	Homo sapiens proteinx0008 (AD013), mRNA
4898	17897	30762	1.51	0.0E+00	AW444637.1	EST_HUMAN	UI-HB9-qw-s-04-0-U1e1 NCL_OGAP_Sub55 Homo sapiens cDNA clone IMAGE:2733294 3'
4804	17903	30772	1.57	0.0E+00	AF303134.1	NT	Homo sapiens aldehyde dehydrogenase 12 (ALDH12) mRNA, complete cds
4808	17907		1.84	0.0E+00	AF083242.1	NT	Homo sapiens HSPC024-Iso mRNA, complete cds
4856	17954		4.74	0.0E+00	AF240783.1	NT	Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds
4859	17957	30815	1.02	0.0E+00	AF097416.1	NT	Mus musculus zinc finger transcription factor Kaiso mRNA, complete cds
4900	17958	30816	1.84	0.0E+00	4503766	NT	Homo sapiens fragile X mental retardation 2 (FMR2) mRNA
4902	17959	30818	3.08	0.0E+00	4885048	NT	Homo sapiens actin, alpha, cardiac muscle (ACTC), mRNA
4904	17952	30820	0.98	0.0E+00	8922180	NT	Homo sapiens hypothetical protein DKFZp792E1312 (DKFZp792E1312), mRNA
4906	17966	30825	1.78	0.0E+00	8923080	NT	Homo sapiens hypothetical protein FLJ20073 (FLJ20073), mRNA
4972	17970	30829	1.69	0.0E+00	M94081.1	NT	Human Tcr-C-delta gene, exons 1-4; Tcr-V-delta gene, exons 1-2; T-cell receptor alpha (Tcr-alpha) gene, J1-J81 segments; and Tcr-C-alpha gene, exons 1-4

Table 4

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
4972	17970	30830	1.69	0.0E+00	M94081.1	NT	Human Tcr-C-delta gene, exons 1-4; Tcr-V-delta gene, exons 1-2; T-cell receptor alpha (Tcr-alpha) gene, J1-J61 segments; and Tcr-C-alpha gene, exons 1-4
4973	17971	30831	1.67	0.0E+00	X94628.1	NT	H. sapiens MeCP-2 gene
4973	17971	30832	1.67	0.0E+00	X94628.1	NT	H. sapiens MeCP-2 gene
4976	17974	30835	2.35	0.0E+00	AL163280.2	NT	Homo sapiens chromosome 21 segment HS21C080
4977	17975	30836	0.98	0.0E+00	7706604	NT	Homo sapiens MAGE-C2 (MAGEC2), mRNA
4995	17994	30851	0.99	0.0E+00	X92841.1	NT	H. sapiens MIC A gene
4998	17995	30852	0.66	0.0E+00	AB037884.1	NT	Homo sapiens mRNA for KIAA1443 protein, partial cds
4997	17996	30853	1.78	0.0E+00	AB014533.1	NT	Homo sapiens mRNA for KIAA0633 protein, partial cds
4998	17997	30854	2.41	0.0E+00		NT	Mus musculus zinc finger protein interacting with K protein 1 (Zfk1), mRNA
4999	17998	30855	1	0.0E+00	5174560	NT	Homo sapiens meningioma expressed antigen 6 (colled-coil proline-rich) (MGEA6), mRNA
5001	18000	30857	1.93	0.0E+00	4758199	NT	Homo sapiens desmoplakin (DPI, DPII) (DSP) mRNA
5003	18002	30859	1.57	0.0E+00	5174560	NT	Homo sapiens meningioma expressed antigen 6 (colled-coil proline-rich) (MGEA6), mRNA
5003	18002	30860	1.57	0.0E+00	5174560	NT	Homo sapiens meningioma expressed antigen 6 (colled-coil proline-rich) (MGEA6), mRNA
5004	18003		3.03	0.0E+00	AJ010442.1	NT	Homo sapiens mRNA for Immunoglobulin kappa light chain, anti-RHD, therad 7
5008	18006	30865	7.51	0.0E+00	AF055069.1	NT	Homo sapiens MHC class 1 region
5010	18008		2.19	0.0E+00	4505508	NT	Homo sapiens oploid receptor, delta 1 (OPRD1) mRNA
5011	18009	30868	3.47	0.0E+00	AF091711.1	NT	Homo sapiens splice variant AKAP350 mRNA, partial cds
5020	18017	30876	0.98	0.0E+00	4507720	NT	Homo sapiens titin (TTN) mRNA
5023	18020	30879	1.16	0.0E+00	D83562.1	NT	Homo sapiens COL4A8 gene for aq (V) collagen, exon 44 and partial cds
5028	18023	30881	1.77	0.0E+00	4503684	NT	Homo sapiens farnesyl diphosphate synthase (farnesyl pyrophosphate synthetase, dimethylallyltransferase, geranyltransferase) (FPPS) mRNA
5032	18029		1.01	0.0E+00	AL163285.2	NT	Homo sapiens chromosome 21 segment HS21C085
5046	18043	30899	1.02	0.0E+00	4504082	NT	Homo sapiens glypican 4 (GPC4) mRNA
5046	18043	30900	1.02	0.0E+00	4504082	NT	Homo sapiens glypican 4 (GPC4) mRNA
5068	18065	30915	1.68	0.0E+00	AL163284.2	NT	Homo sapiens chromosome 21 segment HS21C084
5078	18078	30925	0.77	0.0E+00	AA205437.1	EST_HUMAN	z66808.s1 Stratiene neuroepithelium (8937231) Homo sapiens cDNA clone IMAGE:846547 3'
5085	18082	30931	1.27	0.0E+00	AF058332.1	NT	Homo sapiens titin (TTN) gene, alternative splice products, partial cds
5085	18082	30932	1.27	0.0E+00	AF058332.1	NT	Homo sapiens titin (TTN) gene, alternative splice products, partial cds
5093	18090		6.04	0.0E+00	U14987.1	NT	Human ribosomal protein L21 mRNA, complete cds
5104	18101	30948	1.07	0.0E+00	M10978.1	NT	Human endogenous retroviral DNA (4-1) complete retroviral segment
5108	18103		3.93	0.0E+00	BE408863.1	EST_HUMAN	601303729F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638118 5'
5109	18108	30953	4.84	0.0E+00	4758199	NT	Homo sapiens desmoplakin (DPI, DPII) (DSP) mRNA
5110	18113	30957	1.28	0.0E+00	AB028866.1	NT	Homo sapiens mRNA for KIAA1043 protein, partial cds

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5130	18128	30967	1.98	0.0E+00	8923441	NT	Homo sapiens hypothetical protein FLJ20477 (FLJ20477), mRNA
5130	18128	30968	1.98	0.0E+00	8923441	NT	Homo sapiens hypothetical protein FLJ20477 (FLJ20477), mRNA
5140	18143	30988	0.86	0.0E+00	AA601246.1	EST_HUMAN	no14g09.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100704 3' similar to TR:E239140 E239140 SPALT PROTEIN;
5149	18143	30989	0.86	0.0E+00	AA601246.1	EST_HUMAN	no14g09.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100704 3' similar to TR:E239140 E239140 SPALT PROTEIN;
5149	18143	30990	0.86	0.0E+00	AA601246.1	EST_HUMAN	no14g09.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100704 3' similar to TR:E239140 E239140 SPALT PROTEIN;
5168	18160		1.04	0.0E+00	4756225	NT	Homo sapiens E2F transcription factor 2 (E2F2) mRNA
5180	18172	31017	0.71	0.0E+00	U53588.1	NT	Homo sapiens MHC class 1 region
5187	18179		1.6	0.0E+00	AL163209.2	NT	Homo sapiens chromosome 21 segment HS21C009
5193	18185		1.1	0.0E+00	D50857.1	NT	Homo sapiens gamma-cytoplasmic actin (ACTG3) pseudogene
5208	17317	30184	1.34	0.0E+00	4507720	NT	Homo sapiens titin (TTN) mRNA
5208	17317	30185	1.34	0.0E+00	4507720	NT	Homo sapiens titin (TTN) mRNA
5220	18210	31056	3.95	0.0E+00	X52988.1	NT	Bacillus amyloqueliciens sacB gene for levansucrase (EC 2.4.1.10)
5234	18222	31071	0.88	0.0E+00	AF272663.1	NT	Homo sapiens gephyrin mRNA, complete cds
5243	18230	31080	1.01	0.0E+00	5454153	NT	Homo sapiens cyclophilin (USA-CYP) mRNA
5266	18252	31102	0.97	0.0E+00	7657193	NT	Homo sapiens cyclophilin (USA-CYP) mRNA
5277	18253	31113	0.7	0.0E+00	Y08032.1	NT	Human endogenous retrovirus-K (LTR) U5 and gag gene
5299	18275	31123	0.87	0.0E+00	5902091	NT	Homo sapiens solute carrier family 5 (neutral transporters), member 3 (SLC5A3), mRNA
5305	18289	31141	1.4	0.0E+00	8923822	NT	Homo sapiens potassium inwardly-rectifying channel, subfamily J, member 16 (KCNJ16), mRNA
5305	18259	31142	1.4	0.0E+00	8923822	NT	Homo sapiens potassium inwardly-rectifying channel, subfamily J, member 16 (KCNJ16), mRNA
5307	18291	31144	0.7	0.0E+00	7708245	NT	Homo sapiens 4F2 light chain (LOC51597), mRNA
5307	18291	31145	0.7	0.0E+00	7708245	NT	Homo sapiens 4F2 light chain (LOC51597), mRNA
5308	18292	31146	1.03	0.0E+00	7662421	NT	Homo sapiens KIAA0971 protein (KIAA0971), mRNA
5318	18302	31152	5.68	0.0E+00	J02610.1	NT	Human apolipoprotein B-100 mRNA, complete cds
5329	18313	31162	6.24	0.0E+00	M19828.1	NT	Human apolipoprotein B-100 (apoB) gene, exons 22 through 29
5341	18324	31173	1.01	0.0E+00	AE000327.1	NT	Escherichia coli K-12 MG1655 section 217 of 400 of the complete genome
5351	18334	31182	5.95	0.0E+00	4502152	NT	Homo sapiens apolipoprotein B (including Ag(x) antigen) (APOB) mRNA
5385	18367	31205	0.92	0.0E+00	AV763053.1	EST_HUMAN	AV763053 MDS Homo sapiens cDNA clone MDSBEC05 6'
5385	18367	31206	0.92	0.0E+00	AV763053.1	EST_HUMAN	AV763053 MDS Homo sapiens cDNA clone MDSBEC05 5'
5390	18372	31211	1.09	0.0E+00	AA526781.1	EST_HUMAN	no156d07.s1 NCI_CGAP_Ov2 Homo sapiens cDNA clone IMAGE:980845
5390	18372	31212	1.09	0.0E+00	AA526781.1	EST_HUMAN	no156d07.s1 NCI_CGAP_Ov2 Homo sapiens cDNA clone IMAGE:980845
5422	18419		3.4	0.0E+00	AF093093.1	NT	Homo sapiens aconitase (ACO2) gene, nuclear gene encoding mitochondrial protein, exon 15



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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5433	18515	31239	2.27	0.0E+00	AF137286.1	NT	Homo sapiens keratin 12 (KRT12) gene, complete cds
5433	18515	31240	2.27	0.0E+00	AF137286.1	NT	Homo sapiens keratin 12 (KRT12) gene, complete cds
5456	18537	31379	1.49	0.0E+00	AI834954.1	EST_HUMAN	wp08g08.x1 NCL_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2464094 3'
5459	18540	31382	1.04	0.0E+00	9256579	NT	Homo sapiens protocadherin alpha 13 (PCDHA13), mRNA
5474	18555	31397	3.9	0.0E+00	BE931080.1	EST_HUMAN	RC3-GN0076-310800-013-b03 GN0076 Homo sapiens cDNA
5478	18559	31401	3.28	0.0E+00	AF182034.1	NT	Homo sapiens polycystic kidney disease-like 2 protein (PKDL2) mRNA, complete cds
5478	18559	31402	3.28	0.0E+00	AF182034.1	NT	Homo sapiens polycystic kidney disease-like 2 protein (PKDL2) mRNA, complete cds
5486	18558	31411	5.31	0.0E+00	X56163.1	NT	H.sapiens immunoglobulin heavy chain gene, variable region
5486	18556	31412	5.31	0.0E+00	X56163.1	NT	H.sapiens immunoglobulin heavy chain gene, variable region
5568	18646	31524	5.83	0.0E+00	BE675498.1	EST_HUMAN	7110c06.x1 NCL_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:3294250 3'
5569	18647	31523	1.55	0.0E+00	BE220753.1	EST_HUMAN	h99a02.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3943804 5'
5570	18648	31526	1.4	0.0E+00	BE794412.1	EST_HUMAN	P42694 HYPOTHETICAL PROTEIN KIAA0054. ;
5570	18648	31527	1.4	0.0E+00	BE794412.1	EST_HUMAN	601589422F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943804 5'
							601589422F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943804 5'
5571	18649	31528	0.68	0.0E+00	AI189142.1	EST_HUMAN	qd04a04.x1 Soares_placenta_866weeks_2NBHP8168W Homo sapiens cDNA clone IMAGE:1722702 3'
5575	18653	31531	6.19	0.0E+00	M29908.1	NT	similar to SW:T2D3 DROME P19946 TRANSCRIPTION INITIATION FACTOR TFIIID 85 KD SUBUNIT ;
5579	18657	31534	0.48	0.0E+00	AI791363.1	EST_HUMAN	o168a09.y6 NCL_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1472162 5' similar to gb:M18512 IG
5589	25630	31542	4.46	0.0E+00	11421038	NT	HEAVY CHAIN PRECURSOR Y-I REGION (HUMAN);
5599	18675		2.83	0.0E+00	BF665962.1	EST_HUMAN	Homo sapiens Sp4 transcription factor (SP4), mRNA
5600	18676	31553	0.89	0.0E+00	AU134408.1	EST_HUMAN	602118928F1 NIH_MGC_565 Homo sapiens cDNA clone IMAGE:4276284 5'
5600	18676	31554	0.69	0.0E+00	AU134408.1	EST_HUMAN	AU134408 OVARC1 Homo sapiens cDNA clone OVARC1001894 5'
5606	18682	31561	0.55	0.0E+00	BE538857.1	EST_HUMAN	AU134408 OVARC1 Homo sapiens cDNA clone OVARC1001894 5'
5615	18691	31588	1.33	0.0E+00	BE292784.1	EST_HUMAN	601081489F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3447839 5'
5620	18698	31592	1.53	0.0E+00	BF626328.1	EST_HUMAN	601105691F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2988310 5'
5620	18698	31593	1.53	0.0E+00	BF626328.1	EST_HUMAN	602071372F1 NCL_CGAP_Brn84 Homo sapiens cDNA clone IMAGE:4214272 5'
5639	20167	33406	1.24	0.0E+00	4557364	NT	Homo sapiens Bloom syndrome (BLM) mRNA
5642	18717	31619	0.88	0.0E+00	AB007935.1	NT	Homo sapiens mRNA for KIAA0468 protein, partial cds
5642	18717	31620	0.88	0.0E+00	AB007935.1	NT	Homo sapiens mRNA for KIAA0468 protein, partial cds
5647	18721	31625	4.44	0.0E+00	AF257737.1	NT	Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds
5647	18721	31626	4.44	0.0E+00	AF257737.1	NT	Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds
5661	18735	31642	1.19	0.0E+00	D26535.1	NT	Human gene for dihydropyrimidine succinyltransferase, complete cds (exon 1-15)

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5681	18735	31643	1.19	0.0E+00	D28535.1	NT	Human gene for dihydropyrimidine succinyltransferase, complete cds (exon 1-15)
5677	18751	31673	1.84	0.0E+00	11420819	NT	Homo sapiens olfactory receptor, family 2, subfamily F, member 1 (OR2F1), mRNA
5683	18759	31679	0.94	0.0E+00	Z38133.1	NT	H. sapiens mRNA for myosin
5703	18776	31704	0.91	0.0E+00	D61564.1	EST_HUMAN	HUM418D05B Clontech human fetal brain polyA+ mRNA (#6535) Homo sapiens cDNA clone GEN-418D05
5703	18776	31705	0.91	0.0E+00	D61564.1	EST_HUMAN	HUM418D05B Clontech human fetal brain polyA+ mRNA (#6535) Homo sapiens cDNA clone GEN-418D05
5708	18779	31709	2.72	0.0E+00	BF529931.1	EST_HUMAN	602042322F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4179988 5'
5706	18779	31710	2.72	0.0E+00	BF529931.1	EST_HUMAN	602042322F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4179988 5'
5711	18784	31714	2.33	0.0E+00	BF313139.1	EST_HUMAN	601897658F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4126815 5'
5722	18795	31887	4.47	0.0E+00	11434392	NT	Homo sapiens calcium channel, voltage-dependent, alpha 1G subunit (CACNA1G), mRNA
5738	18811	31905	0.47	0.0E+00	A1928181.1	EST_HUMAN	wc95802.k1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2463051 3' similar to TR:O75054
5738	18811	31906	0.47	0.0E+00	A1928181.1	EST_HUMAN	O75054 KIAA0466 PROTEIN
5759	18829	31929	1.12	0.0E+00	BE260777.1	EST_HUMAN	wc95802.k1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2463051 3' similar to TR:O75054
5783	18838	31959	2.12	0.0E+00	AW867316.1	EST_HUMAN	O75054 KIAA0466 PROTEIN
5781	18853	31958	3.04	0.0E+00	BE292889.1	EST_HUMAN	601150252F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3502809 5'
5781	18853	31959	3.04	0.0E+00	BE292889.1	EST_HUMAN	MRO-SNO037-030400-001-h07 SNO037 Homo sapiens cDNA
5802	18874	31981	1.75	0.0E+00	11420819	NT	601105291F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2987903 5'
5802	18874	31982	1.75	0.0E+00	11420819	NT	601105291F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2987903 5'
5810	18882	31991	4.45	0.0E+00	AF064254.1	NT	Homo sapiens olfactory receptor, family 2, subfamily F, member 1 (OR2F1), mRNA
5817	18899	32001	2.83	0.0E+00	AJ224639.1	NT	Homo sapiens very long-chain acyl-CoA synthetase homolog 1 mRNA, complete cds
5817	18899	32002	2.83	0.0E+00	AJ224639.1	NT	Homo sapiens Surf-5 and Surf-6 genes
5848	18920	32034	0.63	0.0E+00	A1198515.1	EST_HUMAN	Homo sapiens Surf-5 and Surf-6 genes
5853	18924	32040	5.69	0.0E+00	M85719.1	EST_HUMAN	q194gt10.x1 Soares_placenta_869weeks_2NHHP869w Homo sapiens cDNA clone IMAGE:1757730 3'
5860	18931	32049	7.56	0.0E+00	AW405472.1	EST_HUMAN	similar to SW-CADC_HUMAN F65289 BRAIN-CADHERIN PRECURSOR ;
5873	18943	32059	1.31	0.0E+00	Z29269.1	NT	EST02238 Fetal brain, Stralagene (cat#936206) Homo sapiens cDNA clone HFBCM48
5885	18954	32069	1.78	0.0E+00	AW361877.1	EST_HUMAN	UI-HF-BLO-adh-d-02-0-J11 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3081658 5'
5885	18954	32070	1.78	0.0E+00	AW361877.1	EST_HUMAN	H. sapiens isoform 1 gene for L-type calcium channel, exon 14 cdnd 15
5885	18954	32071	1.78	0.0E+00	AW361877.1	EST_HUMAN	PM3-CT0263-091299-007-h05/CT0263 Homo sapiens cDNA
5888	18957	32074	0.58	0.0E+00	AB035268.1	NT	PM3-CT0263-091299-007-h05/CT0263 Homo sapiens cDNA
							Homo sapiens mRNA for neuroxin II, complete cds

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Table 4  
Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
5888	18957	32075	0.58	0.0E+00	AB036266.1	NT	Homo sapiens mRNA for neuroxin II, complete cds
5890	18959	32078	1.97	0.0E+00	U39261.1	NT	Human beta-prime-adaptin (BAM22) gene, exon 13
5924	18991	32110	0.77	0.0E+00	AB048861.1	NT	Homo sapiens mRNA for KIAA1641 protein, partial cds
5946	19013	32133	0.6	0.0E+00	A1114826.1	EST_HUMAN	HA1433 Human fetal liver cDNA library Homo sapiens cDNA
5987	19062	32177	0.47	0.0E+00	AA195905.1	EST_HUMAN	z995b11.1 Stragene muscle 937209 Homo sapiens cDNA clone IMAGE:627933 5' similar to gb:X03740
5988	19053	32178	1.49	0.0E+00	AJ006345.1	NT	MYOSIN HEAVY CHAIN, SKELETAL MUSCLE (HUMAN);
5988	19053	32178	1.49	0.0E+00	AJ006345.1	NT	Homo sapiens KVLQT1 gene
5988	19053	32178	1.49	0.0E+00	AJ006345.1	NT	Homo sapiens KVLQT1 gene
5988	19053	32178	1.49	0.0E+00	AJ006345.1	NT	Homo sapiens KVLQT1 gene
6018	19080	32206	4.18	0.0E+00	A1207616.1	EST_HUMAN	HA2981 Human fetal liver cDNA library Homo sapiens cDNA
6023	19085	32209	1.24	0.0E+00	BE791173.1	EST_HUMAN	Homo sapiens protocadherin beta 2 (PCDH2), mRNA
6033	19095	32222	1.27	0.0E+00	9989943	NT	601584032F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3838551 5'
6034	19096	32223	7.12	0.0E+00	BE960082.1	EST_HUMAN	Homo sapiens amiloride-sensitive calcium channel 1, neuronal (degenerin) (ACCN1), mRNA
6035	19097	32224	1.28	0.0E+00	10048478	NT	601345141F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3877843 5'
6036	19098	32225	2.63	0.0E+00	U86961.1	NT	Mus musculus aczonin (Acz), mRNA
6036	19098	32225	2.63	0.0E+00	U86961.1	NT	Human L-type calcium channel beta-1 subunit (CACNLB1) gene, exon 13B and isoform beta-1B, complete cds
6036	19098	32225	2.63	0.0E+00	U86961.1	NT	Human L-type calcium channel beta-1 subunit (CACNLB1) gene, exon 13B and isoform beta-1B, complete cds
6056	19118	32247	2.56	0.0E+00	BF338835.1	EST_HUMAN	602036272F1 NCI_CGAP_Brim64 Homo sapiens cDNA clone IMAGE:4184321 5'
6080	19122	32250	1.03	0.0E+00	AF142621.1	NT	Homo sapiens calcium channel gamma 5 subunit (CACNG5) gene, exon 4 and complete cds
6081	19123	32251	3.84	0.0E+00	BE273983.1	EST_HUMAN	601104462F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3347463 5'
6073	19134	32268	0.91	0.0E+00	BE503096.1	EST_HUMAN	h283d11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3214581 3' similar to TR:Q62084 Q62084
6078	19139	32275	2.41	0.0E+00	BF569905.1	EST_HUMAN	PHOSPHOLIPASE C NEIGHBORING :
6083	19144	32279	0.95	0.0E+00	AA454642.1	EST_HUMAN	602185852F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310078 5'
6119	19178	32313	2.44	0.0E+00	AF217289.1	NT	z993d06.s1 Soares NIHMPu_S.1 Homo sapiens cDNA clone IMAGE:811883 3'
6121	19180	32315	2.08	0.0E+00	BE828144.1	EST_HUMAN	Homo sapiens cadherin 20 (CDH20) mRNA, complete cds
6126	19185	32320	1.12	0.0E+00	BE958636.1	EST_HUMAN	RC5-ET0027-210600-022-G10 ET0027 Homo sapiens cDNA
6132	19191	32328	0.5	0.0E+00	AJ289980.1	NT	601845287F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3930453 5'
6145	19204	32341	0.45	0.0E+00	BE673986.1	EST_HUMAN	Homo sapiens KIAA0851 gene (partial), X13 gene and LZTFL1 gene
6145	19204	32342	0.45	0.0E+00	BE673986.1	EST_HUMAN	7d72e11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3278540 3' similar to SW:DAX1_HUMAN
6145	19204	32342	0.45	0.0E+00	BE673986.1	EST_HUMAN	P51843 ORPHAN NUCLEAR RECEPTOR DAX-1, [1];
6145	19204	32342	0.45	0.0E+00	BE673986.1	EST_HUMAN	7d72e11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3278540 3' similar to SW:DAX1_HUMAN
6145	19204	32342	0.45	0.0E+00	BE673986.1	EST_HUMAN	P51843 ORPHAN NUCLEAR RECEPTOR DAX-1, [1];

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6150	19209	32348	0.78	0.0E+00	AW278760.1	EST_HUMAN	XP6503.X1 NCI_CGAP_O39 Homo sapiens cDNA clone IMAGE:2745245 3' similar to TR:P78335 P78335
6162	19219	32362	2.18	0.0E+00	BF031742.1	EST_HUMAN	GUANYLATE KINASE ASSOCIATED PROTEIN. ;
6162	19210	32363	2.18	0.0E+00	BF031742.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6174	19231	32378	1.51	0.0E+00	AW470846.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6188	19245	32390	1.04	0.0E+00	BF155670.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6188	19245	32391	1.04	0.0E+00	BF155670.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6196	19252	32397	1.35	0.0E+00	W33089.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6196	19252	32398	1.35	0.0E+00	W33089.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6197	19253	32404	2.23	0.0E+00	AF012618.1	NT	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6201	19257	32404	2.79	0.0E+00	BE280197.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6208	19263	32413	2.4	0.0E+00	BE889610.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6210	19265	32416	0.54	0.0E+00	BE889610.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6226	19291	32436	0.66	0.0E+00	AW752848.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6228	19293	32438	1.47	0.0E+00	11433071	NT	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6229	19293	32439	1.47	0.0E+00	11433071	NT	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6230	19294	32440	1.09	0.0E+00	BE901608.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6230	19294	32441	1.09	0.0E+00	BE901608.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6230	19294	32442	1.09	0.0E+00	BE901608.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6240	25944	32459	10.74	0.0E+00	6789986	NT	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6249	18302	32482	1.3	0.0E+00	AA193506.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6249	18302	32483	1.3	0.0E+00	AA193506.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6272	19323	32489	12.56	0.0E+00	U34625.1	NT	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6272	19323	32489	12.56	0.0E+00	U34625.1	NT	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6274	19325	32491	0.41	0.0E+00	AW853983.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6274	19325	32492	0.41	0.0E+00	AW853983.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6315	19366	32535	1.07	0.0E+00	BE258330.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6325	19375	32543	4.4	0.0E+00	BE156561.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6335	19385	32553	0.49	0.0E+00	M38107.1	NT	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'
6371	19420	32586	1.44	0.0E+00	BE378007.1	EST_HUMAN	601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5'

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6377	19428	32592	1.31	0.0E+00	AU137772.1	EST_HUMAN	AU137772 PLACE1 Homo sapiens cDNA clone PLACE1007201 5'
6399	19447	32618	3.48	0.0E+00	U45982.1	NT	Human G protein-coupled receptor GPR-9-B gene, complete cds
6428	19475	32850	4.17	0.0E+00	AA204740.1	EST_HUMAN	z81d03.r1 Strategene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:648005 5' similar to
6429	19476	32851	3.87	0.0E+00	11545913	NT	TR:G854185 G854195 LEUKOCYTE SURFACE PROTEIN.;
6429	19476	32852	3.87	0.0E+00	11545913	NT	Homo sapiens xylosyltransferase II (XT2), mRNA
6429	19498	32871	0.94	0.0E+00	U07223.1	NT	Homo sapiens xylosyltransferase II (XT2), mRNA
6488	19513	32888	1.91	0.0E+00	11428367	NT	Human beta2-chimaerin mRNA, complete cds
6472	19517	32893	3.71	0.0E+00	BE257173.1	EST_HUMAN	Homo sapiens carcinoembryonic antigen-related cell adhesion molecule 8 (CEACAM8), mRNA
6489	19533		0.79	0.0E+00	AI686048.1	EST_HUMAN	H01109532F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350822 5'
6493	19537	32714	1.55	0.0E+00	L36830.1	NT	H01110.x1 NCI_CGAP_P128 Homo sapiens cDNA clone IMAGE:2248939 3' similar to TR:Q14839 Q14839
6502	19546	32722	1.07	0.0E+00	BE797385.1	EST_HUMAN	Human anion exchanger (AE1) gene, exons 1-20
6502	19546	32723	1.07	0.0E+00	BE797385.1	EST_HUMAN	60158787F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3942329 5'
6514	19568	32739	0.54	0.0E+00	AI198025.1	EST_HUMAN	60158787F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3942329 5'
6514	19569	32740	0.54	0.0E+00	AI198025.1	EST_HUMAN	q150b11.x1 NCI_CGAP_Bin25 Homo sapiens cDNA clone IMAGE:1859901 3' similar to TR:Q12838 Q12838
6517	19561	32742	1.21	0.0E+00	BF357123.1	EST_HUMAN	TR:IC ALPHA SUBUNIT.;
6525	19569	32752	1.81	0.0E+00	11435630	NT	MR0-HT0923-220800-102-b05 HT0923 Homo sapiens cDNA
6536	19579	32761	0.75	0.0E+00	D55649.1	NT	Homo sapiens peptide transporter 3 (LOC51298), mRNA
6554	19596	32784	1.15	0.0E+00	AW178142.1	EST_HUMAN	Human mRNA for alpha mannosidase II isozyme, complete cds
6575	19615	32801	0.7	0.0E+00	BE974544.1	EST_HUMAN	IL3-HT0062-010999-014-A04 HT0062 Homo sapiens cDNA
6581	19622	32807	1.08	0.0E+00	7662039	NT	7602x12.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3281302 3' similar to SW:Y176_HUMAN
6595	19636		6.89	0.0E+00	AV650020.1	EST_HUMAN	Q14691 HYPOTHETICAL PROTEIN KIAA0178 ;
6604	19645	32828	3.52	0.0E+00	AW575598.1	EST_HUMAN	Homo sapiens KIAA0285 gene product (KIAA0285), mRNA
6607	19648	32831	5.76	0.0E+00	H01255.1	EST_HUMAN	AV650020 GLC Homo sapiens cDNA clone GLCGAD09 3'
6617	19658	32842	0.58	0.0E+00	11426293	NT	UI-HF-BLO-acc-g-12-0-J1.at NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3058751 3'
6622	19662	32847	1.69	0.0E+00	X15377.1	NT	Y27603.r1 Soares placenta NB23P Homo sapiens cDNA clone IMAGE:149933 5'
6624	19664	32849	0.71	0.0E+00	AA455375.1	EST_HUMAN	Homo sapiens amiloride-sensitive cation channel 1, neuronal (degenerin) (ACCN1), mRNA
6625	19665	32850	1.09	0.0E+00	AI612841.1	EST_HUMAN	Human gene for the light and heavy chains of myeloperoxidase
6631	19671	32856	4.46	0.0E+00	BE735989.1	EST_HUMAN	aa14e07.r1 Soares_NHMPu_S1 Homo sapiens cDNA clone IMAGE:813252 5'
							tc37d08.x1 NCI_CGAP_Ox35 Homo sapiens cDNA clone IMAGE:2282887 3' similar to SW:NTOS_HUMAN
							P63796 SODIUM- AND CHLORIDE-DEPENDENT CREATINE TRANSPORTER 2 ;
							601305368F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3638616 5'

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6631	19671	32857	4.46	0.0E+00	BE735989.1	EST_HUMAN	601305358F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3639818 5'
6635	19675	32863	0.84	0.0E+00	AW748598.1	EST_HUMAN	MRO-BT0264-221199-002.f11 B10264 Homo sapiens cDNA
6635	19675	32864	0.84	0.0E+00	AW748596.1	EST_HUMAN	MRO-BT0264-221199-002.f11 B10264 Homo sapiens cDNA
6636	19676		0.84	0.0E+00	U77629.1	NT	Homo sapiens Achaete-Scute homologue 2 (ASCL2) gene, complete cds
6638	19678	32866	129.09	0.0E+00	AU119245.1	EST_HUMAN	AU119245 HEMBA1 Homo sapiens cDNA clone HEMBA1005360 5'
6638	19678	32867	129.09	0.0E+00	AU119245.1	EST_HUMAN	AU119245 HEMBA1 Homo sapiens cDNA clone HEMBA1005360 5'
6643	19682	32873	0.89	0.0E+00	BE760453.1	EST_HUMAN	601468712F1 NIH_MGC_87 Homo sapiens cDNA clone IMAGE:3871899 5'
6644	19683	32874	1.07	0.0E+00	X92217.1	NT	H.sapiens germline immunoglobulin heavy chain, variable region, (13-2)
6662	19700	32896	1.94	0.0E+00	A1899483.1	EST_HUMAN	ws25c07.x1 NCL CGAP GC8 Homo sapiens cDNA clone IMAGE:2498220 3'
6677	19714	32909	2.55	0.0E+00	BE293153.1	EST_HUMAN	601105344F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2987963 5'
6677	19714	32910	2.65	0.0E+00	BE293153.1	EST_HUMAN	601105344F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2987963 5'
6711	19747	32950	0.53	0.0E+00	BE667057.1	EST_HUMAN	601443175F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847291 5'
6717	19763	32959	0.46	0.0E+00	BF057438.1	EST_HUMAN	7k43105.x1 NCL CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3478496 3' similar to TR:O14563 O14563 R31240_1;
6754	19788	33001	1.48	0.0E+00	AW406348.1	EST_HUMAN	U1-HF-BL0-acc-h-02-0-U1.1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3059931 5'
6754	19788	33002	1.48	0.0E+00	AW406348.1	EST_HUMAN	U1-HF-BL0-acc-h-02-0-U1.1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3059931 5'
6789	19822	33034	15.78	0.0E+00	AV719444.1	EST_HUMAN	AV719444 GLC Homo sapiens cDNA clone GLCEHC06 5'
6798	19831	33041	0.8	0.0E+00	BE898340.1	EST_HUMAN	601681150F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3951301 5'
6798	19831	33042	0.8	0.0E+00	BE898340.1	EST_HUMAN	601681150F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3951301 5'
6801	19834	33045	2.53	0.0E+00	AF100860.1	NT	Homo sapiens low voltage-activated T-type calcium channel alpha 1G splice variant CavT.1a (CACNA1G) mRNA, complete cds
6804	19837	33048	0.47	0.0E+00	L48546.1	NT	Homo sapiens tuberin (TSC2) gene, exons 38, 39, 40 and 41
6806	19839	33049	1.14	0.0E+00	11420658	NT	Homo sapiens transformation/transcription domain-associated protein (TRRAP), mRNA
6813	19849	33056	4.34	0.0E+00	AW163840.1	EST_HUMAN	au96108.Y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2784159 5' similar to TR:O15390 O15390 GT24. (3) TR:O43840 TR:O43208 ;
6813	19849	33057	4.34	0.0E+00	AW163840.1	EST_HUMAN	au96108.Y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2784159 5' similar to TR:O15390 O15390 GT24. (3) TR:O43840 TR:O43208 ;
6817	19850	33060	1.07	0.0E+00	W37163.1	EST_HUMAN	z520606.r1 Soares fetal lung NBHL19W Homo sapiens cDNA clone IMAGE:302626 5' similar to SW:ZN45_HUMAN_Q02386 ZINC FINGER PROTEIN 45 ;
6817	19850	33061	1.07	0.0E+00	W37163.1	EST_HUMAN	z520606.r1 Soares fetal lung NBHL19W Homo sapiens cDNA clone IMAGE:302626 5' similar to SW:ZN45_HUMAN_Q02386 ZINC FINGER PROTEIN 45 ;
6835	19867	33081	1.3	0.0E+00	BE794853.1	EST_HUMAN	601589371F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943504 5'
6842	19874	33088	4.76	0.0E+00	BE799873.1	EST_HUMAN	601587561F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3941847 5'
6843	19876	33089	0.79	0.0E+00	BE767955.1	EST_HUMAN	QV1-GN0095-140800-318-H02 GN0095 Homo sapiens cDNA

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
6843	19875	33080	0.79	0.0E+00	BE767955.1	EST_HUMAN	QV1-GN0065-140500-318-h02 GN0065 Homo sapiens cDNA
6847	19879	33093	7.27	0.0E+00	BE889813.1	EST_HUMAN	601512058F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913311 5'
6847	19879	33094	7.27	0.0E+00	BE889813.1	EST_HUMAN	601512058F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913311 5'
6857	19889	33103	3.58	0.0E+00	L24493.1	NT	Human antigen CD27 gene, exons 1-2
6862	19894	33107	2.53	0.0E+00	AL163204.2	NT	Homo sapiens chromosome 21 segment HS21C004
6862	19894	33108	2.53	0.0E+00	AL163204.2	NT	Homo sapiens chromosome 21 segment HS21C004
6868	19900	33115	3.77	0.0E+00	6005983	NT	Homo sapiens zona pellucida glycoprotein 3A (sperm receptor) (ZP3A), mRNA
6872	19903	33118	4.2	0.0E+00	AI638412.1	EST_HUMAN	H31111.x1 NCL_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2242413 3' similar to SW:WNT3_MOUSE
6874	19905	33120	1.71	0.0E+00	L32832.1	NT	P17553 WNT-3 PROTO-ONCOGENE PROTEIN PRECURSOR. ;
6897	19917	33133	0.72	0.0E+00	AW605430.1	EST_HUMAN	Homo sapiens zinc finger homeodomain protein (ATBF1-A) mRNA, complete cds
6899	19919	33134	4.43	0.0E+00	AA434584.1	EST_HUMAN	UI-HF-BN0-ama-c-01-Q-UI-T NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3081217 5'
6904	19934		1.1	0.0E+00	BF217200.1	EST_HUMAN	zw52c03.1 Soares fetal N52HF8_gw Homo sapiens cDNA clone IMAGE:773868 5'
6909	19939	33158	1.88	0.0E+00	BE925575.1	EST_HUMAN	601885917F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4103683 5'
6943	19972	33165	0.76	0.0E+00	11428758	NT	QV3-BN0047-300500-278-c06 BN0047 Homo sapiens cDNA
6943	19972	33166	0.76	0.0E+00	11428758	NT	Homo sapiens solute carrier family 1 (high affinity aspartate/glutamate transporter), member 6 (SLC1A6), mRNA
6944	19973		0.52	0.0E+00	AJ230823.1	EST_HUMAN	Homo sapiens solute carrier family 1 (high affinity aspartate/glutamate transporter), member 6 (SLC1A6), mRNA
6945	19974	33168	0.51	0.0E+00	AW611984.1	EST_HUMAN	AJ230823 Homo sapiens library (Seranski P) Homo sapiens cDNA clone PS13D7 3'
6965	19993	33221	1.33	0.0E+00	AJ125928.1	EST_HUMAN	h82e04.x1 NCL_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2852126 3'
6967	19995	33223	0.63	0.0E+00	BE701434.1	EST_HUMAN	AU125928 NT2RM4 Homo sapiens cDNA clone NT2RM4002430 5'
6967	19995	33224	0.63	0.0E+00	BE701434.1	EST_HUMAN	PM2-NN0174-260700-001-h10 NN0174 Homo sapiens cDNA
6990	20017	33249	1.29	0.0E+00	BE142363.1	EST_HUMAN	PM2-NN0174-260700-001-h10 NN0174 Homo sapiens cDNA
7012	20039	33272	0.83	0.0E+00	BE006012.1	EST_HUMAN	CMO-HT0143-270989-062-d08 HT0143 Homo sapiens cDNA
7012	20039	33273	0.83	0.0E+00	BE006012.1	EST_HUMAN	RCO-BN0121-280300-032-e04 BN0121 Homo sapiens cDNA
7041	20087	33301	7.63	0.0E+00	BE169131.1	EST_HUMAN	RCO-BN0121-280300-032-e04 BN0121 Homo sapiens cDNA
7043	20089	33303	1.48	0.0E+00	BF085667.1	EST_HUMAN	PM3-HT0520-230200-002-c08 HT0520 Homo sapiens cDNA
7083	20289	33548	3.08	0.0E+00	AA180755.1	EST_HUMAN	IL5-GN0032-180900-145-d07 GN0032 Homo sapiens cDNA
7095	20301	33582	1.01	0.0E+00	U39573.1	NT	z88e03.1 Stralagene HeLa cell e3 937216 Homo sapiens cDNA clone IMAGE:827282 5'
7099	20305	33584	0.77	0.0E+00	BE671987.1	EST_HUMAN	Human salivary peroxidase mRNA, complete cds
7111	20315	33578	6.63	0.0E+00	A1940621.1	EST_HUMAN	7449007.x1 NCL_CGAP_GC8 Homo sapiens cDNA clone IMAGE:3222037 3' similar to TR:Q8Z265 Q8Z265 TEK1N ;
7111	20315	33579	6.63	0.0E+00	A1940621.1	EST_HUMAN	IL3-ST0024-230799-001-B01 ST0024 Homo sapiens cDNA
7111	20315	33579	6.63	0.0E+00	A1940621.1	EST_HUMAN	IL3-ST0024-230799-001-B01 ST0024 Homo sapiens cDNA



Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
7123	20327	33592	1.99	0.0E+00	11435628	NT	Homo sapiens CD6 antigen (CD6), mRNA
7137	20245	33497	0.91	0.0E+00	AL042443.1	EST_HUMAN	DKFZp434D2021_11434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434D2021_5'
7138	20246	33498	4.06	0.0E+00	X59103.1	NT	H. sapiens immunoglobulin heavy chain gene, variable region
7141	20249	33501	0.84	0.0E+00	AI168270.1	EST_HUMAN	0010d01.x1 Soares NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:1565761 3' similar to
7146	20254	33506	0.91	0.0E+00	BE734087.1	EST_HUMAN	TR:Q26623 Q26623 TEKIN C1.1
7171	18443	31312	1.18	0.0E+00	BE66381.1	EST_HUMAN	601567370F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3842080 5'
7181	18453	31322	13.52	0.0E+00	BE667889.1	EST_HUMAN	601339977F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3682267 5'
7181	18453	31323	13.52	0.0E+00	BE667889.1	EST_HUMAN	601443667F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847697 5'
7189	20189	33432	2.33	0.0E+00	BE550162.1	EST_HUMAN	601443667F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847697 5'
7189	20189	33433	2.33	0.0E+00	BE550162.1	EST_HUMAN	7049703.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3231581 3' similar to SW:GG95_HUMAN
7203	20203	33448	0.55	0.0E+00	BF700780.1	EST_HUMAN	Q08379 GOLGIN-95.1
7217	20217	33464	1.43	0.0E+00	BF088376.1	EST_HUMAN	7049703.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3231581 3' similar to SW:GG95_HUMAN
7224	20223	33471	2.11	0.0E+00	AA195106.1	EST_HUMAN	Q08379 GOLGIN-95.1
7232	20141		11.86	0.0E+00	11034810	NT	602128585F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4285532 5'
7234	20143	33382	1.04	0.0E+00	11431474	NT	CM1-HT0877-060900-397-g11 HT0877 Homo sapiens cDNA
7280	20189	33398	2.57	0.0E+00	BF569905.1	EST_HUMAN	z34g03.r1 Soares NIHMPu_S1 Homo sapiens cDNA clone IMAGE:665332 5'
7258	20167	33406	0.59	0.0E+00	4557384	NT	Homo sapiens catenin (cadherin-associated protein), delta 2 (neural plakophilin-related arm-repeat protein)
7266	20175		1.94	0.0E+00	J03059.1	NT	(CTNND2), mRNA
7276	20229	33477	2.97	0.0E+00	AF217289.1	NT	Homo sapiens sodium channel, nonvoltage-gated 1, beta (Liddle syndrome) (SCNN1B), mRNA
7276	20228	33478	2.97	0.0E+00	AF217289.1	NT	602185852F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310076 5'
7277	20230	33479	0.88	0.0E+00	M38113.1	NT	Homo sapiens cadherin 20 (CDH20) mRNA, complete cds
7280	18459	31329	3.15	0.0E+00	11420775	NT	Homo sapiens cadherin 20 (CDH20) mRNA, complete cds
7291	18460	31330	0.58	0.0E+00	AI419969.1	EST_HUMAN	Human MYCL2 gene, complete cds
7291	18460	31331	0.58	0.0E+00	AI419969.1	EST_HUMAN	Homo sapiens cadherin 20 (CDH20) mRNA, complete cds
7296	18465	31335	0.88	0.0E+00	BE250708.1	EST_HUMAN	Homo sapiens melanoma antigen, family B, 2 (MAGEB2), mRNA
7308	18476	31298	0.56	0.0E+00	BE904955.1	EST_HUMAN	tg53c06.x1 Soares NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2112490 3' similar to
							SW:OXYB_HUMAN P22059 OXYSTEROL-BINDING PROTEIN. ;
							tg53c06.x1 Soares NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2112490 3' similar to
							SW:OXYB_HUMAN P22059 OXYSTEROL-BINDING PROTEIN. ;
							601116616F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3356330 5'
							601496743F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3889739 5'



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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
7310	18478	31300	0.42	0.0E+00	AI660911.1	EST_HUMAN	wf21c09.x1 Soares_Dieckgraefe_colon_NHUC Homo sapiens cDNA clone IMAGE:2351248 3' similar to gb:M74287 HOMEOBOX PROTEIN HOX-A4 (HUMAN); contains PTR5.b1 MER22 MER22 repetitive element;
7310	18478	31301	0.42	0.0E+00	AI660911.1	EST_HUMAN	wf21c09.x1 Soares_Dieckgraefe_colon_NHUC Homo sapiens cDNA clone IMAGE:2351248 3' similar to gb:M74287 HOMEOBOX PROTEIN HOX-A4 (HUMAN); contains PTR5.b1 MER22 MER22 repetitive element;
7321	18489	31261	1.18	0.0E+00	AU118478.1	EST_HUMAN	AU118478 HEMBA1 Homo sapiens cDNA clone HEMBA1003679 5'
7324	18492	31265	5.41	0.0E+00	BE262641.1	EST_HUMAN	601148954F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3501829 5'
7325	18493	31266	2.62	0.0E+00	Z37976.1	NT	H.sapiens mRNA for latent transforming growth factor-beta binding protein (LTBP-2)
7325	18493	31267	2.62	0.0E+00	Z37976.1	NT	H.sapiens mRNA for latent transforming growth factor-beta binding protein (LTBP-2)
7326	18494	31268	2.7	0.0E+00	AF257737.1	NT	Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds
7326	18494	31269	2.7	0.0E+00	AF257737.1	NT	Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds
7333	18501	31276	1.35	0.0E+00	AF310103.1	NT	Homo sapiens NALP1 mRNA, complete cds
7335	18503	31278	0.71	0.0E+00	BF130916.1	EST_HUMAN	60181972F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4051709 5'
7340	20336	33601	0.64	0.0E+00	BE762770.1	EST_HUMAN	QV3-NT0022-140600-223-f01 NT0022 Homo sapiens cDNA
7348	20342	33608	2.33	0.0E+00	BF66905.1	EST_HUMAN	602185852F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310076 5'
7348	20344	33610	0.56	0.0E+00	AJ404468.1	NT	Homo sapiens mRNA for dynein heavy chain (DNAH9 gene)
7348	20344	33611	0.56	0.0E+00	AJ404468.1	NT	Homo sapiens mRNA for dynein heavy chain (DNAH9 gene)
7352	20348	33616	3.51	0.0E+00	L01978.1	NT	Human type IV sodium channel alpha polypeptide (SCN4A) gene, exon 19
7357	20352	33620	0.62	0.0E+00	AW502362.1	EST_HUMAN	U1-HF-BR0p-aka-d-10-Q-U1.1 NIH_MGC_52 Homo sapiens cDNA clone IMAGE:3076290 5'
7357	20352	33621	0.62	0.0E+00	AW502362.1	EST_HUMAN	U1-HF-BR0p-aka-d-10-Q-U1.1 NIH_MGC_52 Homo sapiens cDNA clone IMAGE:3076290 5'
7367	20351	33630	1	0.0E+00	AL039581.1	EST_HUMAN	DKFZp434D2211_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434D2211 5'
7367	20351	33631	1	0.0E+00	AL039581.1	EST_HUMAN	DKFZp434D2211_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434D2211 5'
7377	20371	33640	5.86	0.0E+00	BF306996.1	EST_HUMAN	60188982F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4123948 5'
7383	20376	33645	2.24	0.0E+00	U41302.1	NT	Human chromosome 16 creatine transporter (SLC6A8) and (CDM) paralogous genes, complete cds
7427	20128	33365	0.84	0.0E+00	AL049784.1	NT	Novel human gene mapping to chromosome 13
7433	20131	33372	0.47	0.0E+00	AW513069.1	EST_HUMAN	xx40e02.x1 NCI_CGAP_U11 Homo sapiens cDNA clone IMAGE:2708458 3' similar to TR:094895 094895 KIAA0803 PROTEIN;
7467	20407	33683	0.64	0.0E+00	AB026893.1	NT	Homo sapiens mRNA for vascular cadherin-2, complete cds
7467	20407	33684	0.64	0.0E+00	AB026893.1	NT	Homo sapiens mRNA for vascular cadherin-2, complete cds
7472	20412	33680	0.8	0.0E+00	AU137738.1	EST_HUMAN	AU137738 PLACE1 Homo sapiens cDNA clone PLACE1007120 5'
7472	20412	33691	0.8	0.0E+00	AU137738.1	EST_HUMAN	AU137738 PLACE1 Homo sapiens cDNA clone PLACE1007120 5'
7478	20418	33697	1.4	0.0E+00	AW954805.1	EST_HUMAN	EST366876 IMAGE resequencing, MAGC Homo sapiens cDNA

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
7479	20419	33698	1.08	0.0E+00	BE254103.1	EST_HUMAN	601113958F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3354566 5'
7493	20433	33712	1.27	0.0E+00	L01973.1	NT	Human type VI sodium channel alpha polypeptide (SCN4A) gene, exon 14
7501	20440	33722	0.71	0.0E+00	AB007935.1	NT	Homo sapiens mRNA for KIAA0499 protein, partial cds
7501	20440	33723	0.71	0.0E+00	AB007935.1	NT	Homo sapiens mRNA for KIAA0499 protein, partial cds
7507	20446	33730	2.19	0.0E+00	AU133213.1	EST_HUMAN	AU133213 NT2RP4 Homo sapiens cDNA clone NT2RP4001558 5'
7524	20463	33751	0.88	0.0E+00	11428081	NT	Homo sapiens membrane protein OHL (OHL), mRNA
7526	20465	33753	0.42	0.0E+00	AA312125.1	EST_HUMAN	EST192818 Jurkat T-cells VI Homo sapiens cDNA 5' end
7532	20471	33760	2.81	0.0E+00	AU143706.1	EST_HUMAN	AU143706 Y79AA1 Homo sapiens cDNA clone Y79AA1002365 5'
7533	20472	33760	0.82	0.0E+00	4758839	NT	Homo sapiens neflin 1 (NTN1), mRNA
7543	20482	33770	1.24	0.0E+00	BE891288.1	EST_HUMAN	601431819F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3917164 5'
7543	20482	33771	1.24	0.0E+00	BE891288.1	EST_HUMAN	601431819F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3917164 5'
7566	18515	31239	2.49	0.0E+00	AF137286.1	NT	Homo sapiens keratin 12 (KRT12) gene, complete cds
7566	18515	31240	2.46	0.0E+00	AF137286.1	NT	Homo sapiens keratin 12 (KRT12) gene, complete cds
7578	20514	33801	0.66	0.0E+00	BE747231.1	EST_HUMAN	601580948F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3929722 5'
7578	20514	33802	0.66	0.0E+00	BE747231.1	EST_HUMAN	601580948F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3929722 5'
7591	20527	33816	4.25	0.0E+00	11436699	NT	Homo sapiens vitamin D (1,25-dihydroxyvitamin D3) receptor (VDR), mRNA
7591	20527	33817	4.25	0.0E+00	11436699	NT	Homo sapiens vitamin D (1,25-dihydroxyvitamin D3) receptor (VDR), mRNA
7606	20541	33831	0.52	0.0E+00	AF227744.1	NT	Homo sapiens voltage-dependent calcium channel alpha 1G subunit isoform ae (CACNA1G) mRNA, complete cds
7628	20553	33856	36.3	0.0E+00	A1128344.1	EST_HUMAN	qc67a07.x1 Soares_placenta_8to9weeks_2NbhP8b9W Homo sapiens cDNA clone IMAGE:1714644 3' similar to SW:ARSD_HUMAN P51689 ARYL SULFATASE D PRECURSOR ; contains element HGR repetitive element ;
7628	20553	33857	36.3	0.0E+00	A1128344.1	EST_HUMAN	qc67a07.x1 Soares_placenta_8to9weeks_2NbhP8b9W Homo sapiens cDNA clone IMAGE:1714644 3' similar to SW:ARSD_HUMAN P51689 ARYL SULFATASE D PRECURSOR ; contains element HGR repetitive element ;
7631	20566	33860	0.56	0.0E+00	AF227135.1	NT	Homo sapiens candidate taste receptor T2R9 gene, complete cds
7631	20566	33861	0.56	0.0E+00	AF227135.1	NT	Homo sapiens candidate taste receptor T2R9 gene, complete cds
7634	20569	33864	3.46	0.0E+00	11428392	NT	Homo sapiens myosin, heavy polypeptide 8, skeletal muscle, perinatal (MYH8), mRNA
7634	20569	33865	3.46	0.0E+00	11428392	NT	Homo sapiens myosin, heavy polypeptide 8, skeletal muscle, perinatal (MYH8), mRNA
7638	20573		13.17	0.0E+00	BF337375.1	EST_HUMAN	602035089F1 NCI_CGAP_Brim4 Homo sapiens cDNA clone IMAGE:4162639 5'
7641	20576	33870	2.93	0.0E+00	AA128463.1	EST_HUMAN	zn60f08.r1 Stragene muscle E97209 Homo sapiens cDNA clone IMAGE:562601 5' similar to TR:G806562 G806562 NEBULIN ;
7646	20580	33876	2.2	0.0E+00	AL079497.1	EST_HUMAN	DKFZp434B0226_r1_434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B0226 5'
7646	20580	33877	2.2	0.0E+00	AL079497.1	EST_HUMAN	DKFZp434B0226_r1_434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B0226 5'

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
7657	20591	33889	0.6	0.0E+00	AJ270896.1	NT	Homo sapiens partial mRNA for LTRPC5 protein (LTRPC5 gene)
7692	20624	33924	1.16	0.0E+00	BE296499.1	EST_HUMAN	631174576F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3529794 5'
7694	20626	33925	0.87	0.0E+00	11427885	NT	Homo sapiens hypothetical protein (FLJ20261), mRNA
7697	20629	33928	2.81	0.0E+00	AU118607.1	EST_HUMAN	AU118607 HEMBA1 Homo sapiens cDNA clone HEMBA1003969 5'
7698	20630	33929	2.12	0.0E+00	AF005213.1	NT	Homo sapiens ankryrin 1 (ANK1) mRNA, complete cds
7698	20630	33929	2.12	0.0E+00	AF005213.1	NT	Homo sapiens ankryrin 1 (ANK1) mRNA, complete cds
7710	20642	33939	0.83	0.0E+00	AF245505.1	NT	Homo sapiens adiclin mRNA, complete cds
7718	20650	33944	14.21	0.0E+00	X70172.1	NT	H.sapiens DNA for ZNGP2 pseudogene, exon 4
7720	20652	33946	9.51	0.0E+00	U45448.1	NT	Human P2x1 receptor mRNA, complete cds
7720	20652	33947	9.51	0.0E+00	U45448.1	NT	Human P2x1 receptor mRNA, complete cds
7734	20663	33963	0.88	0.0E+00	AW96503.1	EST_HUMAN	EST338573 MAGE resequenced, MAGD Homo sapiens cDNA
7736	20668	33965	0.54	0.0E+00	BE972445.1	EST_HUMAN	760H08.X1 NCL CGAP_QC8 Homo sapiens cDNA clone IMAGE:3223167 3' similar to gb:M54911_mn1 IG
7737	20669	33968	2.27	0.0E+00	AW950516.1	EST_HUMAN	HEAVY CHAIN PRECURSOR V-II REGION (HUMAN)
7766	20696	33995	0.68	0.0E+00	AF001543.1	EST_HUMAN	EST302588 MAGE resequenced, MAGA Homo sapiens cDNA
7766	20696	33998	0.68	0.0E+00	AF001543.1	EST_HUMAN	AF001543 Human cDNA (Chandrasekharappa,S.C.) Homo sapiens cDNA clone kappa_200
7766	20696	33997	0.68	0.0E+00	AF001543.1	EST_HUMAN	AF001543 Human cDNA (Chandrasekharappa,S.C.) Homo sapiens cDNA clone kappa_200
7791	20720	34024	0.59	0.0E+00	MB0354.1	NT	Human BTF3 protein homologue gene, complete cds
7792	20721	34024	0.59	0.0E+00	BE408293.1	EST_HUMAN	601302879F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3637434 5'
7804	20733	34035	0.6	0.0E+00	AW402542.1	EST_HUMAN	UI-HF-BKO-aas-g-07-q-U1r1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3054924 5'
7823	20762		1.04	0.0E+00	R87430.1	EST_HUMAN	Ym88h10.r1 Scores adult brain N2b4HB55Y Homo sapiens cDNA clone IMAGE:166051 5'
7824	20763	34058	1.68	0.0E+00	AW239326.1	EST_HUMAN	x839a05.y1 NCL CGAP_Lu31 Homo sapiens cDNA clone IMAGE:2578840 5' similar to TR:Q08050 Q08050
7846	20773		1.37	0.0E+00	AU117553.1	EST_HUMAN	HNF3/FH TRANSCRIPTION FACTOR GENESIS ;
7848	20775	34076	4.38	0.0E+00	11427135	NT	HN3/FH TRANSCRIPTION FACTOR GENESIS ;
7870	20797	34100	0.54	0.0E+00	AA211663.1	EST_HUMAN	z15602.r1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:562203 5' similar to gb:X03740
7878	20804	34107	0.63	0.0E+00	BF229235.1	EST_HUMAN	MYOSIN HEAVY CHAIN, SKELETAL MUSCLE (HUMAN);
7883	20809	34115	0.82	0.0E+00	AW405627.1	EST_HUMAN	MRO-AN0083-270900-004-007 AN0083 Homo sapiens cDNA
7889	20815	34121	0.68	0.0E+00	AW990499.1	EST_HUMAN	UI-HF-BLO-abe-d-07-q-U1r1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3057489 5'
7892	20818	34124	0.71	0.0E+00	L32832.1	NT	QV3-BN0046-220300-129-e04 BN0046 Homo sapiens cDNA
7919	20842	34146	0.79	0.0E+00	BF306996.1	EST_HUMAN	Homo sapiens zinc finger homeodomain protein (ATBF1-A) mRNA, complete cds
7919	20842	34146	0.79	0.0E+00	BF306996.1	EST_HUMAN	601889823F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4123948 5'
7926	20851	34158	1.35	0.0E+00	AU118767.1	EST_HUMAN	601889823F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4123948 5'

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
7884	20836	34187	0.53	0.0E+00	AW489551.1	EST_HUMAN	U1-HF-BR0p-ajl-e-10-0-JL1.1 NIH_MGC_52 Homo sapiens cDNA clone IMAGE:3074778 5'
7992	20910	34224	0.48	0.0E+00	AB002355.1	NT	Human mRNA for KIAA0357 gene, partial cds
7993	20911	34225	4.12	0.0E+00	A1752561.1	EST_HUMAN	cn17d05.x1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cnt17d05 random
7993	20911	34226	4.12	0.0E+00	A1752561.1	EST_HUMAN	cn17d05.x1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cnt17d05 random
8085	20978	34283	0.53	0.0E+00	AA399959.1	EST_HUMAN	zu68b07.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:743125 5'
8085	20978	34284	0.53	0.0E+00	AA399959.1	EST_HUMAN	zu68b07.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:743125 5'
8085	20979	34285	0.86	0.0E+00	AL046347.2	EST_HUMAN	DKFZp434J087_r1 434 (syncytin hies3) Homo sapiens cDNA clone DKFZp434J087 5'
8083	20995	34314	1.14	0.0E+00	AF064205.1	NT	Homo sapiens dynactin 1 (DCTN1) gene, alternatively spliced products, exons 7 through 32 and complete cds
8083	20995	34315	1.14	0.0E+00	AF064205.1	NT	Homo sapiens dynactin 1 (DCTN1) gene, alternatively spliced products, exons 7 through 32 and complete cds
8084	20986	34316	0.42	0.0E+00	AI990099.1	EST_HUMAN	vs29b04.x1 NCI_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2498576 3' similar to gb:M28668 CYSTIC FIBROSIS TRANSMEMBRANE CONDUCTANCE REGULATOR (HUMAN);
8082	21004	34327	1.01	0.0E+00	U74315.1	EST_HUMAN	HSU74315 Human chromosome 14 Homo sapiens cDNA clone 1-4
8106	21018	34344	0.57	0.0E+00	BE439545.1	EST_HUMAN	HTM1-183F1 HTM1 Homo sapiens cDNA
8107	21019	34345	1.2	0.0E+00	11417342	NT	Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A), mRNA
8123	21033	34361	0.49	0.0E+00	AW672785.1	EST_HUMAN	ba01e08.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823106 5' similar to SW:P101_P1G O028966 PHOSPHATIDYLINOSITOL 3-KINASE REGULATORY SUBUNIT ;
8123	21033	34362	0.49	0.0E+00	AW672785.1	EST_HUMAN	ba01e08.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823106 5' similar to SW:P101_P1G O028966 PHOSPHATIDYLINOSITOL 3-KINASE REGULATORY SUBUNIT ;
8139	21048	34378	0.68	0.0E+00	AI825504.1	EST_HUMAN	wb17g05.x1 NCI_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2305978 3' similar to TR:O75363 O75363 AIBC1.;
8139	21048	34379	0.68	0.0E+00	AI825504.1	EST_HUMAN	wb17g05.x1 NCI_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2305978 3' similar to TR:O75363 O75363 AIBC1.;
8148	21057	34389	2.82	0.0E+00	6912735	NT	Homo sapiens transient receptor potential channel 5 (TRPC5), mRNA
8154	21061	34392	1.06	0.0E+00	N76126.1	EST_HUMAN	z88b05.s1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:289456 3'
8163	21070	34399	5.4	0.0E+00	BF217905.1	EST_HUMAN	601885465F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4103729 5'
8168	21075	34403	0.46	0.0E+00	BF599862.1	EST_HUMAN	602165808F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310256 5'
8173	21080	34410	4.39	0.0E+00	AU128622.1	EST_HUMAN	AU128622 NT2RP2 Homo sapiens cDNA clone NT2RP2005913 5'
8187	25685	34434	0.86	0.0E+00	AW069274.1	EST_HUMAN	c:42e09.x1 Jia bone marrow stroma Homo sapiens cDNA clone HBMSC_c42e09 3'
8197	25685	34435	0.86	0.0E+00	AW069274.1	EST_HUMAN	c:42e09.x1 Jia bone marrow stroma Homo sapiens cDNA clone HBMSC_c42e09 3'

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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8201	21107	34437	6.78	0.0E+00	4501848	NT	Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA
8208	21114	34444	0.97	0.0E+00	AV758467.1	EST_HUMAN	AV758467 BM Homo sapiens cDNA clone BMFBGG06 5'
8211	21116	34446	6.59	0.0E+00	BE739870.1	EST_HUMAN	601593158F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3947366 5'
8211	21116	34447	6.58	0.0E+00	BE739870.1	EST_HUMAN	601593156F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3947366 5'
8212	21117	34448	0.78	0.0E+00	6912481	NT	Homo sapiens atrophin-1 Interacting protein 1; activin receptor Interacting protein 1 (KIAA0705), mRNA
8212	21117	34449	0.78	0.0E+00	6912481	NT	Homo sapiens atrophin-1 Interacting protein 1; activin receptor Interacting protein 1 (KIAA0705), mRNA
8213	21118	34450	0.85	0.0E+00	AU120424.1	EST_HUMAN	AU120424 HEMBB1 Homo sapiens cDNA clone HEMBB1000855 5'
8213	21118	34451	0.85	0.0E+00	AU120424.1	EST_HUMAN	AU120424 HEMBB1 Homo sapiens cDNA clone HEMBB1000855 5'
8240	21145	34477	0.53	0.0E+00	BF590267.1	EST_HUMAN	contains element TAR1 repetitive element;
8254	21159	34492	1.58	0.0E+00	BE787610.1	EST_HUMAN	601481713F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3884268 5'
8254	21159	34493	1.58	0.0E+00	BE787610.1	EST_HUMAN	601481713F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3884268 5'
8287	21191	34528	0.47	0.0E+00	AI927216.1	EST_HUMAN	w09c07.x1 NCI CGAP U11 Homo sapiens cDNA clone IMAGE:2424396 3' similar to TR:Q80808 Q80808
8295	21199	34535	0.63	0.0E+00	X92224.1	NT	OLFATORY RECEPTOR 4;
8295	21199	34535	0.63	0.0E+00	X92224.1	NT	H sapiens germline immunoglobulin heavy chain, variable region, (8-1G1)
8298	21202	34538	0.56	0.0E+00	BE739804.1	EST_HUMAN	601305637F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3840041 5'
8304	21208	34543	0.42	0.0E+00	AW402189.1	EST_HUMAN	UI-HF-BKO-aat-c-07-q-UI,1 NIH_MGC_36 Homo sapiens cDNA clone IMAGE:3054733 5'
8309	21213	34550	0.53	0.0E+00	AW966307.1	EST_HUMAN	EST388377 MAGC resequencing, MAGD Homo sapiens cDNA
8317	21222		0.46	0.0E+00	BE503884.1	EST_HUMAN	7831604.x1 NCI CGAP GC8 Homo sapiens cDNA clone IMAGE:3220302 3' similar to db:S67798
8342	21247	34582	0.43	0.0E+00	Y16795.1	NT	HYALURONIDASE PRECURSOR (HUMAN);
8350	21255	34590	0.51	0.0E+00	W52673.1	EST_HUMAN	Homo sapiens psihHaA pseudogene
8351	21256	34591	0.75	0.0E+00	11425128	NT	ze9010.71 Pancreatic islet Homo sapiens cDNA clone IMAGE:338443 5'
8352	21257	34592	0.53	0.0E+00	AU117333.1	EST_HUMAN	Homo sapiens similar to ER to nucleus signalling 1 (H. sapiens) (LOC83433), mRNA
8353	21258		0.43	0.0E+00	BE613963.1	EST_HUMAN	AU117333 HEMBAT Homo sapiens cDNA clone HEMBA1001175 5'
8379	21283	34614	0.63	0.0E+00	AW966044.1	EST_HUMAN	601504084F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3905733 5'
8380	21284	34615	0.46	0.0E+00	AI133435.1	EST_HUMAN	EST380119 MAGC resequencing, MAGJ Homo sapiens cDNA
8389	21293	34625	0.46	0.0E+00	BE090733.1	EST_HUMAN	HA2043 Human fetal liver cDNA library Homo sapiens cDNA
8403	21306	34637	0.44	0.0E+00	6995995	NT	RC1-B10721-050400-011-h05 B10721 Homo sapiens cDNA
8403	21306	34638	0.44	0.0E+00	6995995	NT	Homo sapiens cystic fibrosis transmembrane conductance regulator, ATP-binding cassette (sub-family C, member 7) (CFTR), mRNA
8403	21306	34638	0.44	0.0E+00	6995995	NT	Homo sapiens cystic fibrosis transmembrane conductance regulator, ATP-binding cassette (sub-family C, member 7) (CFTR), mRNA

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8405	21338	34840	0.51	0.0E+00	AW403220.1	EST_HUMAN	UI-HF-BKO-ayy-h-04-0-UI.1 NIH_MGC_36 Homo sapiens cDNA clone IMAGE:3055710 5'
8417	21320	34852	2.78	0.0E+00	AV707162.1	EST_HUMAN	AV707162 ADB Homo sapiens cDNA clone ADBOWE07 5'
8417	21320	34853	2.76	0.0E+00	AV707162.1	EST_HUMAN	AV707162 ADB Homo sapiens cDNA clone ADBOWE07 5'
8419	21322	34855	0.44	0.0E+00	AW403420.1	EST_HUMAN	UI-HF-BKO-abe-g-03-0-UI.1 NIH_MGC_36 Homo sapiens cDNA clone IMAGE:30553068 5'
8436	21358	34709	0.67	0.0E+00	AU133187.1	EST_HUMAN	AU133187 NT2RP4 Homo sapiens cDNA clone NT2RP4001507 5'
8479	21410		0.7	0.0E+00	BF21200.1	EST_HUMAN	601885317F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4103693 5'
8491	21422	34761	0.78	0.0E+00	BE313013.1	EST_HUMAN	601750347F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3503050 5'
8502	21433	34774	1.51	0.0E+00	AA149791.1	EST_HUMAN	z001c06.1 Stratiene colon (#837204) Homo sapiens cDNA clone IMAGE:366410 5'
8516	21446	34788	0.88	0.0E+00	BF026628.1	EST_HUMAN	601872310F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3955131 5'
8544	21475	34817	2.47	0.0E+00	BE736046.1	EST_HUMAN	601305658F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3639903 5'
8591	21492	34833	7.07	0.0E+00	M34872.1	NT	Human amyloid-beta protein (Aβ) gene, exon 11
8591	21492	34834	7.07	0.0E+00	M34872.1	NT	Human amyloid-beta protein (Aβ) gene, exon 11
8589	21520	34864	0.77	0.0E+00	AW674581.1	EST_HUMAN	b534d02.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2985123 5' similar to TR:O64652 O84652
8589	21520	34865	0.77	0.0E+00	AW674581.1	EST_HUMAN	b534d02.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2985123 5' similar to TR:O64652 O84652
8596	21527	34871	2.99	0.0E+00	AA397851.1	EST_HUMAN	z181b04.r1 Stratiene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482
8598	21529	34872	0.83	0.0E+00	AW387131.1	EST_HUMAN	G300482 POL=REVERSE TRANSCRIPTASE HOMOLOG (RETROVIRAL ELEMENT) ;
8600	21531		0.69	0.0E+00	AB020681.1	NT	MR0-ST0031-061099-003-a11 ST0031 Homo sapiens cDNA
8601	21532	34873	2.57	0.0E+00	AU142402.1	EST_HUMAN	Homo sapiens mRNA for KIAA0384 protein, partial cds
8605	21536	34877	1	0.0E+00	BE368421.1	EST_HUMAN	AU142402 Y79AA1 Homo sapiens cDNA clone Y79AA1000217 5'
8605	21536	34878	1	0.0E+00	BE368421.1	EST_HUMAN	601285550F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3607237 5'
8619	21550	34891	0.53	0.0E+00	7557278	NT	601285550F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3607237 5'
8621	21552	34893	0.9	0.0E+00	W95278.1	EST_HUMAN	Homo sapiens killer cell immunoglobulin-like receptor, two domains, short cytoplasmic tail, 1 (KIR2DS1), mRNA
8621	21552	34894	0.9	0.0E+00	W95278.1	EST_HUMAN	z005501.r1 Soares_fetal_heart_NbH-19W Homo sapiens cDNA clone IMAGE:358081 5'
8623	21554		6.23	0.0E+00	BF673086.1	EST_HUMAN	z005501.r1 Soares_fetal_heart_NbH-19W Homo sapiens cDNA clone IMAGE:358081 5'
8627	21558		0.53	0.0E+00	AU134114.1	EST_HUMAN	602153008F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4294128 5'
8672	21603	34943	1.81	0.0E+00	AL120124.1	EST_HUMAN	AU134114 OVARC1 Homo sapiens cDNA clone OVARC1001298 5'
8672	21603	34944	1.51	0.0E+00	AL120124.1	EST_HUMAN	DKFZp761P092.1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761P092 5'
8712	21643		1.19	0.0E+00	BE877693.1	EST_HUMAN	DKFZp761P092.1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761P092 5'
8735	21655	35010	1.44	0.0E+00	AW500549.1	EST_HUMAN	601485254F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3887773 5'

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Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8743	21873	35016	13.09	0.0E+00	AW157233.1	EST_HUMAN	au93b08.x1 Schneider fetal brain 30004 Homo sapiens cDNA clone IMAGE:2783799 3' similar to TR:O80463 O60463 TYPE-2 PHOSPHATIDIC ACID PHOSPHOHYDROLASE. [1];
8760	21820	35033		0.0E+00	AW072395.1	EST_HUMAN	xa07d12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2567639 3' similar to containe element OFR repetitive element;
8778	21708	35054	0.83	0.0E+00	11421722	NT	Homo sapiens centrosomal protein 2 (CEP2), mRNA
8781	21711	35057	1.11	0.0E+00	W01818.1	EST_HUMAN	za36d05.r1 Soares fetal liver spleen 1NLS Homo sapiens cDNA clone IMAGE:294633 5'
8782	21712	35058	0.84	0.0E+00	W01818.1	EST_HUMAN	801578185F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3928998 5'
8782	21712	35059	1.29	0.0E+00	BE745597.1	EST_HUMAN	601578185F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3928998 5'
8782	21712	35059	1.29	0.0E+00	BE745597.1	EST_HUMAN	601578185F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3928998 5'
8785	21725	35073	1.81	0.0E+00	AJ271735.1	NT	Homo sapiens Xq pseudautosomal region; segment 1/2
8831	21761	35107	0.56	0.0E+00	AI367350.1	EST_HUMAN	q95c12.x1 NCL_CGAP_U12 Homo sapiens cDNA clone IMAGE:1989334 3' similar to TR:Q14873 Q14873 KIAA0184 PROTEIN;
8843	21773	35120	2.89	0.0E+00	BE974157.1	EST_HUMAN	7478a04.x1 NCL_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3278882 3' similar to TR:O85793 O85793 STAU60 PROTEIN;
8845	21775	35122	1.34	0.0E+00	AI895671.1	EST_HUMAN	w60b10.x1 NCL_CGAP_Bn25 Homo sapiens cDNA clone IMAGE:2429276 3' similar to SW:COGT_HUMAN P50281 MATRIX METALLOPROTEINASE-14 PRECURSOR;
8859	21789	35139	1.38	0.0E+00	BE563650.1	EST_HUMAN	601334790F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3688655 5'
8859	21789	35140	1.38	0.0E+00	BE563650.1	EST_HUMAN	601334790F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3688655 5'
8866	21793	35149	1.88	0.0E+00	11427235	NT	Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA
8866	21796	35150	1.88	0.0E+00	11427235	NT	Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA
8869	21708	35182	1.58	0.0E+00	AA403192.1	EST_HUMAN	z66f02.r1 Soares_total_fetus_Nb2HF8_9n Homo sapiens cDNA clone IMAGE:768619 5' similar to TR:G1304132 G1304132 TPRD;
8868	21798	35183	1.58	0.0E+00	AA403192.1	EST_HUMAN	z66f02.r1 Soares_total_fetus_Nb2HF8_9n Homo sapiens cDNA clone IMAGE:768619 5' similar to TR:G1304132 G1304132 TPRD;
8908	21838		6.06	0.0E+00	AA398511.1	EST_HUMAN	z73a08.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:727958 3' similar to gb:S85655 PROHIBITIN (HUMAN);
8916	21846	35201	0.85	0.0E+00	BE837593.1	EST_HUMAN	RC2-FN0094-120600-013-h07 FN0094 Homo sapiens cDNA
8917	21847	35202	2.19	0.0E+00	AW364874.1	EST_HUMAN	QV3-DT0048-221289-046-c07 DT0045 Homo sapiens cDNA
8917	21847	35203	2.19	0.0E+00	AW364874.1	EST_HUMAN	QV3-DT0045-221289-046-c07 DT0045 Homo sapiens cDNA
8934	21884	35221	1.24	0.0E+00	BE612586.1	EST_HUMAN	601452412F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3856179 5'
8934	21884	35222	1.24	0.0E+00	BE612586.1	EST_HUMAN	601452412F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3856179 5'
8948	21878	35238	1.86	0.0E+00	AL163209.2	NT	Homo sapiens chromosome 21; segment HS21C009
8948	21878	35239	1.86	0.0E+00	AL163209.2	NT	Homo sapiens chromosome 21; segment HS21C009
8958	21898	35246	1.05	0.0E+00	AI884477.1	EST_HUMAN	wm33a11.x1 NCL_CGAP_U14 Homo sapiens cDNA clone IMAGE:2437724 3' similar to TR:O75457 O75457 CYTOSOLIC PHOSPHOLIPASE A2-GAMMA;



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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
8965	21895	35252	0.83	0.0E+00	AA502284.1	EST_HUMAN	ne25d10.a1 NCL CGAP_C68 Homo sapiens cDNA clone IMAGE:882259 3' similar to TRG1138434
8969	21899		0.72	0.0E+00	11418789	NT	G1136434 KIAA0187 PROTEIN. ;
8977	21907	35263	0.59	0.0E+00	A1590780.1	EST_HUMAN	Homo sapiens proteodherin beta 3 (PCDH9), mRNA
8980	21910		2.13	0.0E+00	BE880767.1	EST_HUMAN	ta04f11.X1 Soares_pregnanL uterus_NHPU Homo sapiens cDNA clone IMAGE:2043117 3'
9004	21933	35288	0.65	0.0E+00	AW245765.1	EST_HUMAN	601431238F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3916599 5'
9004	21933	35289	0.65	0.0E+00	AW245765.1	EST_HUMAN	2822701.8prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822701 5'
9005	21934	35290	2.12	0.0E+00	4756895	NT	2822701.9prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822701 5'
9005	21934	35291	2.12	0.0E+00	4756895	NT	Homo sapiens mitogen-activated protein kinase kinase 13 (MAP3K13), mRNA
9008	21937	35293	0.54	0.0E+00	U88084.1	NT	Homo sapiens mitogen-activated protein kinase kinase 13 (MAP3K13), mRNA
9008	21937	35294	0.54	0.0E+00	U88084.1	NT	Human zinc finger protein (ZNF165), gene, exons 2 and 3
9073	22002	35346	0.73	0.0E+00	AJ251760.1	NT	Human zinc finger protein (ZNF165), gene, exons 2 and 3
9077	22005	35360	1.01	0.0E+00	X98922.1	NT	Homo sapiens NESP55, GNAS1 antisense (partial) and XLalphas (partial) genes
9077	22006	35361	1.01	0.0E+00	X98922.1	NT	H. sapiens mRNA for gamma-glutamyltransferase
9077	22006	35362	1.01	0.0E+00	X98922.1	NT	H. sapiens mRNA for gamma-glutamyltransferase
9090	22019	35375	0.65	0.0E+00	U82979.1	NT	Human immunoglobulin-like transcript-3 mRNA, complete cds
9130	22058	35418	0.82	0.0E+00	AF022655.1	NT	Homo sapiens cep250 centrosome associated protein mRNA, complete cds
9130	22058	35419	0.82	0.0E+00	AF022655.1	NT	Homo sapiens cep250 centrosome associated protein mRNA, complete cds
9133	22061	35421	0.93	0.0E+00	AU131671.1	EST_HUMAN	AU131671 NT2RP3 Homo sapiens cDNA clone NT2RP3003018 5'
9147	22075	35437	0.62	0.0E+00	11426572	NT	Homo sapiens immunoglobulin superfamily, member 2 (IGSF2), mRNA
9150	22078		2.11	0.0E+00	AW1513513.1	EST_HUMAN	xx46a01.x1 NCL CGAP_U11 Homo sapiens cDNA clone IMAGE:2707032 3' similar to gb:M14123_cds4
9152	22080		0.51	0.0E+00	BE783232.1	EST_HUMAN	RETROVIRUS-RELATED POL POLYPROTEIN (HUMAN);
9163	22081	35439	2.82	0.0E+00	D52650.1	EST_HUMAN	601472166F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3874912 5'
9182	22110	35469	4.47	0.0E+00	BE378495.1	EST_HUMAN	HUM084C02B Clontech human fetal brain polyA+ mRNA (#6535) Homo sapiens cDNA clone GEN-084C02
9186	22116	35473	2.25	0.0E+00	AA410545.1	EST_HUMAN	5'
9189	22117		2.14	0.0E+00	BF313946.1	EST_HUMAN	601236488F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608709 5'
9196	22124	35480	0.52	0.0E+00	11424387	NT	d32e04.f1 Soares ovary tumor_NbHOT Homo sapiens cDNA clone IMAGE:724062 5'
9201	22129	35486	1.45	0.0E+00	AW139673.1	EST_HUMAN	601900571F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4128744 5'
9201	22129	35486	1.45	0.0E+00	AW139673.1	EST_HUMAN	Homo sapiens leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 3 (LILRB3), mRNA
9232	22160	35515	0.55	0.0E+00	AL163301.2	NT	U1-H-B11-adr-e-12-0-U1.s1 NCL CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2717687 3'
9238	22166	35519	2.36	0.0E+00	BE260272.1	EST_HUMAN	U1-H-B11-adr-e-12-0-U1.s1 NCL CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2717687 3'



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## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
9243	22171	35523	2.72	0.0E+00	BF700165.1	EST_HUMAN	602127664F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4284542 5'
9243	22171	35524	2.72	0.0E+00	BF700165.1	EST_HUMAN	602127664F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4284542 5'
9243	22171	35525	2.72	0.0E+00	BF700165.1	EST_HUMAN	602127664F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4284542 5'
9287	22185	35541	0.51	0.0E+00	AL458722.1	EST_HUMAN	IK13h11.x1 NCJ_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2150949 3'
9284	22212	35570	0.81	0.0E+00	AL449770.1	EST_HUMAN	AL449770 Homo sapiens fetal brain (Slavides GS) Homo sapiens cDNA α80g02.61 NCJ_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1602184 3' similar to gb:M38072 80S
9291	22219	35578	11.94	0.0E+00	AA862527.1	EST_HUMAN	RIBOSOMAL PROTEIN L7A (HUMAN);
9297	22225	35584	0.53	0.0E+00	10947037	NT	Homo sapiens ankyrin 1, erythrocytic (ANK1), transcript variant 1, mRNA
9297	22225	35585	0.53	0.0E+00	10947037	NT	Homo sapiens ankyrin 1, erythrocytic (ANK1), transcript variant 1, mRNA
9321	22249	35613	1.51	0.0E+00	Y11107.3	NT	Homo sapiens ITGB4 gene for integrin beta 4 subunit, exons 3-41
9323	22251	35615	1.64	0.0E+00	BE278917.1	EST_HUMAN	601156330F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3139734 5'
9333	22261		2.66	0.0E+00	AV718377.1	EST_HUMAN	AV718377 FHTB Homo sapiens cDNA clone FHTBAAF11 5'
9339	22267	35630	1.86	0.0E+00	AW337277.1	EST_HUMAN	xw73c07.x1 NCJ_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2833644 3' similar to gb:X53687
9344	22272	35634	1.67	0.0E+00	AU124051.1	EST_HUMAN	INTEGRIN BETA-4 SUBUNIT PRECURSOR (HUMAN);
9421	22349	35714	0.85	0.0E+00	AU140704.1	EST_HUMAN	AU124051 NT2RM2 Homo sapiens cDNA clone NT2RM2001575 5'
9430	22369	35721	0.53	0.0E+00	AB007923.1	NT	AU140704 PLACE4 Homo sapiens cDNA clone PLACE400089 5'
9438	22368	35726	6.3	0.0E+00	AW592233.1	EST_HUMAN	Homo sapiens mRNA for KIAA0454 protein, partial cds
9438	22368	35727	6.3	0.0E+00	AW592233.1	EST_HUMAN	h48a09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2935098 3'
9484	22412	35773	1.94	0.0E+00	AV714764.1	EST_HUMAN	h48a09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2935098 3'
9499	22427	35788	3.12	0.0E+00	AL040428.1	EST_HUMAN	AV714764 DCB Homo sapiens cDNA clone DOBAUA06 5'
9499	22427	35789	3.12	0.0E+00	AL040428.1	EST_HUMAN	DKFZp434C1814_s1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434C1814 3'
9505	22432	35795	1.43	0.0E+00	AF133801.1	NT	DKFZp434C1814_s1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434C1814 3'
9507	22434	35798	2.04	0.0E+00	AB040945.1	NT	Homo sapiens killer inhibitory receptor 2-2-1 (KIR221) and killer inhibitory receptor 2-2-2 (KIR222) genes, partial cds
9514	22441		0.68	0.0E+00	BF058289.1	EST_HUMAN	Homo sapiens mRNA for KIAA1512 protein, partial cds
9542	22468	35828	4.05	0.0E+00	11422857	NT	Homo sapiens mRNA for KIAA1512 protein, partial cds
9562	22479	35838	1.35	0.0E+00	K01241.1	NT	S GAG. ;
9569	22480	35846	7.51	0.0E+00	AB020630.1	NT	Homo sapiens tumor protein p73 (TP73), mRNA
9569	22486	35847	7.51	0.0E+00	AB020630.1	NT	Human Ig rearranged H-chain epsilon-3 pseudogene, constant region
9584	22491	35853	1.48	0.0E+00	AV660739.1	EST_HUMAN	Homo sapiens mRNA for KIAA0823 protein, partial cds
9589	22498	35859	4.11	0.0E+00	7706938	NT	Homo sapiens mRNA for KIAA0823 protein, partial cds
9574	22501	35864	0.55	0.0E+00	BE763326.1	EST_HUMAN	AV660739 GLC Homo sapiens cDNA clone GLCGK12 3'
							Homo sapiens polyomavirus (PVL), mRNA
							601588304F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3942553 5'

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
9588	22514		0.74	0.0E+00	H79937.1	EST_HUMAN	y03h08.r1 Soares fetal liver spleen 1NfLS Homo sapiens cDNA clone IMAGE:232787 5'
9599	22525	35889	4.06	0.0E+00	BE318402.1	EST_HUMAN	601141119F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3140740 5'
9599	22525	35880	4.06	0.0E+00	BE318402.1	EST_HUMAN	601141119F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3140740 5'
9608	22534	36004	0.71	0.0E+00	BE612721.1	EST_HUMAN	601452582F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3856100 5'
9608	22534	35905	0.71	0.0E+00	BE612721.1	EST_HUMAN	601452582F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3856100 5'
9611	22537		0.59	0.0E+00	M89986.1	NT	Human polymorphic loci in Xq28
9613	22539	35909	1.88	0.0E+00	X14798.1	NT	Human mRNA for GABA-A receptor, alpha 1 subunit
9628	22554	35924	2.38	0.0E+00	A1061395.1	EST_HUMAN	an26e04.x1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:1700094 3'
9632	22558	35927	2.3	0.0E+00	A1064607.1	EST_HUMAN	wq34a12.x1 NCI_QGAP_GC6 Homo sapiens cDNA clone IMAGE:2473150 3' similar to SW:MG83_HUMAN
9637	22593	35933	5.32	0.0E+00	92565956	NT	O15480 MELANOMA-ASSOCIATED ANTIGEN B3 ;
9647	22573	35944	1.92	0.0E+00	AW958311.1	EST_HUMAN	Homo sapiens protocadherin alpha 8 (PCDH8), mRNA
9657	22583	35954	3.01	0.0E+00	9635487	EST_HUMAN	EST370381 MAGe resequenced, MAGe Homo sapiens cDNA
9673	22599	35972	1.26	0.0E+00	AU142662.1	EST_HUMAN	Human endogenous retrovirus, complete genome
9686	22612	35986	1.31	0.0E+00	11438995	NT	AU142662 Y79AA1 Homo sapiens cDNA clone Y79AA1000878 5'
9687	22613		0.94	0.0E+00	BE410768.1	EST_HUMAN	Homo sapiens MAP-kinase activating death domain (MADD), mRNA
9701	22628	36005	1.57	0.0E+00	BF002024.1	EST_HUMAN	601301676F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3836163 5'
9714	22639	36019	1.46	0.0E+00	AB011150.1	NT	7q97h12.x1 NCI_QGAP_Gc16 Homo sapiens cDNA clone IMAGE:3314471 3' similar to TR:Q8UH62
9715	22840	36020	4.58	0.0E+00	BE794823.1	EST_HUMAN	Q9UH62 HYPOTHETICAL 42.5 KD PROTEIN ;
9719	22844	36025	0.58	0.0E+00	BE810292.1	EST_HUMAN	Homo sapiens mRNA for KIAA0578 protein, partial cds
9719	22844	36026	0.58	0.0E+00	BE810292.1	EST_HUMAN	601589294F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943463 5'
9722	22847	36029	0.71	0.0E+00	AU136228.1	EST_HUMAN	RC3-PT0151-290600-011-c05 P10151 Homo sapiens cDNA
9726	22861	36033	1.23	0.0E+00	BE883843.1	EST_HUMAN	RC3-PT0151-290600-011-c05 P10151 Homo sapiens cDNA
9728	22861	36034	1.23	0.0E+00	BE883843.1	EST_HUMAN	AU138228 PLACE1 Homo sapiens cDNA clone PLACE1003804 5'
9744	22659	36050	0.75	0.0E+00	AB011168.1	NT	601510247F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3911988 5'
9747	22871	36054	1.85	0.0E+00	AA344801.1	EST_HUMAN	601510247F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3911988 5'
9747	22871	36055	1.85	0.0E+00	AA344801.1	EST_HUMAN	Homo sapiens mRNA for KIAA0594 protein, partial cds
9805	22711	36093	0.99	0.0E+00	AW673469.1	EST_HUMAN	EST50505 Gall bladder Homo sapiens cDNA 5' end
9805	22711	36094	0.99	0.0E+00	AW673469.1	EST_HUMAN	EST50505 Gall bladder Homo sapiens cDNA 5' end
9838	22743	36124	1.58	0.0E+00	BE207063.1	EST_HUMAN	ba54d08.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2900367 5' similar to TR:O60275 O60275
							KIAA0522 PROTEIN;
							ba54d08.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2900367 5' similar to TR:O60275 O60275
							KIAA0522 PROTEIN;
							ba09f05.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823873 5' similar to gb:L35049 Mus musculus
							Bcl-xL mRNA, complete cds (MOUSE);

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Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
9838	22743	36125	1.68	0.0E+00	BE207063.1	EST_HUMAN	b05005.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823873 5' similar to gb:L35049 Mus musculus Bcl-xL mRNA, complete cds (MOUSE);
9849	22957	36346	1.93	0.0E+00	BF346013.1	EST_HUMAN	602023150F1 NCI_CGAP_Bim67 Homo sapiens cDNA clone IMAGE:4158300 5'
9883	22708	36184	3.23	0.0E+00	BE712515.1	EST_HUMAN	QV2-HT0088-230700-282-508 Hjt0698 Homo sapiens cDNA
9916	22904	36291	0.72	0.0E+00	BF034377.1	EST_HUMAN	601455118F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3659035 5'
9916	22904	36292	0.72	0.0E+00	BF034377.1	EST_HUMAN	601455116F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3859035 5'
9923	22911	36299	0.79	0.0E+00	5803069	NT	Homo sapiens leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 5 (LILRB5), mRNA
9923	22911	36300	0.79	0.0E+00	5803069	NT	Homo sapiens leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 5 (LILRB5), mRNA
9932	22937	36226	1.29	0.0E+00	AL042278.1	EST_HUMAN	DKFZp343L0120.1 434 (synonym: hes3) Homo sapiens cDNA clone DKFZp343L0120 5'
9965	22870	36259	1.88	0.0E+00	AI088043.1	EST_HUMAN	aw60h01.x1 Soares_NSF_F8 p1V_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:1651249 3' similar to TR-Q14877 Q14877 KIAA0171 PROTEIN. ;
9972	21330	34662	0.57	0.0E+00	BF309862.1	EST_HUMAN	601892245F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4138066 5'
9973	21331	34663	4.02	0.0E+00	11550151	NT	Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA
9973	21331	34664	4.02	0.0E+00	11550151	NT	Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA
9975	21333	34667	8.83	0.0E+00	AI290809.1	EST_HUMAN	qtr08a06.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1881298 3' similar to SW:RL2B_HUMAN
9975	21333	34668	8.83	0.0E+00	AI290809.1	EST_HUMAN	qtr08a06.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1881298 3' similar to SW:RL2B_HUMAN
9976	21334	34669	1.41	0.0E+00	AW953836.1	EST_HUMAN	P29316 60S RIBOSOMAL PROTEIN L23A. ;
10003	22820	36207	4.26	0.0E+00	AF163466.1	NT	EST356026 MAGE resequences, MAGE Homo sapiens cDNA
10006	22823	36211	0.73	0.0E+00	BE885128.1	EST_HUMAN	Homo sapiens polycystic kidney/disease 2-like protein (PKD2L) gene, exon 8
10006	22823	36212	0.73	0.0E+00	BE885128.1	EST_HUMAN	601510882F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912165 5'
10015	22915	36307	8.31	0.0E+00	BE255829.1	EST_HUMAN	601510882F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912165 5'
10018	22918	36307	1.72	0.0E+00	BE781382.1	EST_HUMAN	601109942F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350722 5'
10018	22918	36308	1.72	0.0E+00	BE781382.1	EST_HUMAN	601486828F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3870007 5'
10020	22920	36309	15.09	0.0E+00	AW163779.1	EST_HUMAN	601486828F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3870007 5'
10040	22940	36329	3.44	0.0E+00	BE283191.1	EST_HUMAN	60S RIBOSOMAL PROTEIN L7A (HUMAN);
10057	22973	36363	5.14	0.0E+00	C06158.1	EST_HUMAN	601146064F2 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3160477 5'
10057	22973	36364	5.14	0.0E+00	C06158.1	EST_HUMAN	601146064F2 NIH_MGC_19 Homo sapiens cDNA clone hbc5605
10059	22975	36367	2.77	0.0E+00	BE748216.1	EST_HUMAN	C06158 Human pancreatic islet Homo sapiens cDNA clone hbc5605
10059	22975	36367	2.77	0.0E+00	BE748216.1	EST_HUMAN	C06158 Human pancreatic islet Homo sapiens cDNA clone hbc5605
10068	22684	36375	2.2	0.0E+00	11437282	NT	601578683F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3927548 5'
							Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
10088	22984	36376	2.2	0.0E+00	11437282	NT	Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA
10088	22984	36377	2.2	0.0E+00	11437282	NT	Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA
10088	22981	36267	1.92	0.0E+00	BE00349.1	EST_HUMAN	601673425F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3956238 5'
10105	22996	36391	1.14	0.0E+00	AV701829.1	EST_HUMAN	AV701829 ADB Homo sapiens cDNA clone ADBBYH01 5'
10117	23008	36403	2.68	0.0E+00	AF019084.1	NT	Homo sapiens keratin 2a (KRT2E) gene, complete cds
10117	23008	36404	2.68	0.0E+00	AF019084.1	NT	Homo sapiens keratin 2a (KRT2E) gene, complete cds
10148	23039	36438	1.16	0.0E+00	BE082977.1	EST_HUMAN	RC2-BT0642-130300-017-g01 BT0642 Homo sapiens cDNA
10167	23058	36458	2.11	0.0E+00	AW500293.1	EST_HUMAN	U1-HF-BND-akg-b-12-0-U1.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3076943 5'
10167	23058	36459	2.11	0.0E+00	AW500293.1	EST_HUMAN	U1-HF-BND-akg-b-12-0-U1.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3076943 5'
10176	23097	36465	1.5	0.0E+00	AF029308.1	NT	Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and trypsinogen gene families
10176	23097	36466	1.5	0.0E+00	AF029308.1	NT	Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and trypsinogen gene families
10178	23059	36467	0.68	0.0E+00	BE783272.1	EST_HUMAN	601470824F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3874037 5'
10178	23059	36468	0.68	0.0E+00	BE783272.1	EST_HUMAN	601470824F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3874037 5'
10185	23076	36477	0.82	0.0E+00	W56629.1	EST_HUMAN	z16e11.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:340844 5'
10185	23076	36478	0.82	0.0E+00	W56629.1	EST_HUMAN	z16e11.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:340844 5'
10188	23089	36490	1.09	0.0E+00	AB035356.1	NT	Homo sapiens mRNA for neurexin I-alpha protein, complete cds
10202	23093		0.64	0.0E+00	A1124780.1	EST_HUMAN	ant56a11.x1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1639548 3'
10204	23095	36495	2.27	0.0E+00	AW500528.1	EST_HUMAN	U1-HF-BND-akg-c-07-0-U1.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077364 5'
10245	23136	36541	2.24	0.0E+00	AF009568.1	NT	Multiple sclerosis associated retrovirus polyprotein (pol) mRNA, partial cds
10272	23162	36572	2.9	0.0E+00	S78466.1	NT	AlGF=androgen-induced growth factor AlGF [human, placenta, Genomic/mRNA, 498 nt, segment 5 of 5]
10272	23162	36573	2.9	0.0E+00	S78466.1	NT	AlGF=androgen-induced growth factor AlGF [human, placenta, Genomic/mRNA, 498 nt, segment 5 of 5]
10275	23165	36578	3.07	0.0E+00	BE563320.1	EST_HUMAN	601334603F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3688680 5'
10293	23183	36584	1.9	0.0E+00	AW363133.1	EST_HUMAN	CM2-CT0311-301199-043-h11 CT0311 Homo sapiens cDNA
10319	23208	36619	0.98	0.0E+00	BE206710.1	EST_HUMAN	B626c01.x1 NIH_MGC_5 Homo sapiens cDNA clone IMAGE:2984000 3'
10334	23223	36637	2.47	0.0E+00	AU132349.1	EST_HUMAN	AU132349 NT2RP3 Homo sapiens cDNA clone NT2RP3004260 5'
10334	23223	36638	2.47	0.0E+00	AU132349.1	EST_HUMAN	AU132349 NT2RP3 Homo sapiens cDNA clone NT2RP3004260 5'
10343	23232	36650	0.84	0.0E+00	AW500936.1	EST_HUMAN	U1-HF-BP0p-af-4-05-0-U1.r1 NIH_MGC_51 Homo sapiens cDNA clone IMAGE:3072887 5'
10349	23238	36656	19.64	0.0E+00	BE740490.1	EST_HUMAN	601695558F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3949383 5'
10349	23238	36657	19.64	0.0E+00	BE740490.1	EST_HUMAN	601695558F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3949383 5'
10361	23280	36870	1.98	0.0E+00	7662067	NT	Homo sapiens KIAA0345 gene product (KIAA0345), mRNA

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
10378	23267	36689	1.53	0.0E+00	AL042278.1	EST_HUMAN	DKFZp434L0120_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434L0120 5'
10392	23281	36701	3.06	0.0E+00	AU132349.1	EST_HUMAN	AU132349 NT2RP3 Homo sapiens cDNA clone NT2RP3004260 5'
10393	23282	36702	2.33	0.0E+00	AF152308.1	NT	Homo sapiens protocadherin alpha 12 (PCDH-alpha12) mRNA, complete cds
10419	23308	36728	2.26	0.0E+00	AF009220.1	NT	Homo sapiens leucocyte immunoglobulin-like receptor-1 mRNA, complete cds
10419	23308	36729	2.26	0.0E+00	AF009220.1	NT	Homo sapiens leucocyte immunoglobulin-like receptor-1 mRNA, complete cds
10435	23324	36742	1.13	0.0E+00	BF092898.1	EST_HUMAN	MR4-TN0114-110900-101-e04 TN0114 Homo sapiens cDNA
10461	23349	36766	2.86	0.0E+00	BE280793.1	EST_HUMAN	601156227F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3138798 5'
10470	23358	36772	3.26	0.0E+00	BE368700.1	EST_HUMAN	601286351F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3613045 5'
10470	23358	36773	3.26	0.0E+00	BE368700.1	EST_HUMAN	601286351F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3613045 5'
10479	23367	36779	2.47	0.0E+00	AW236269.1	EST_HUMAN	xt72b01.x1 NCL CGAP_CML1 Homo sapiens cDNA clone IMAGE:2699977 3' similar to gbX02152_cds1 L-LACTATE DEHYDROGENASE IM CHAIN (HUMAN);
10490	23368	36780	0.75	0.0E+00	AA341305.1	EST_HUMAN	EST46740 Fetal kidney II Homo sapiens cDNA 5' end
10509	23366	36808	1.13	0.0E+00	AW904113.1	EST_HUMAN	EST376109 MAGC resequences, MAGH Homo sapiens cDNA
10519	23406	36817	6.12	0.0E+00	AU143673.1	EST_HUMAN	AU143673 Y79AA1 Homo sapiens cDNA clone Y79AA1002307 5'
10519	23406	36818	6.12	0.0E+00	AU143673.1	EST_HUMAN	AU143673 Y79AA1 Homo sapiens cDNA clone Y79AA1002307 5'
10522	23409	36821	4.19	0.0E+00	AF072408.1	NT	Homo sapiens killer cell inhibitory receptor KIRCI gene, exons 2, 3, and 4
10525	23411	36823	2.44	0.0E+00	11421001	NT	Homo sapiens HEF like Protein (HEFL), mRNA
10525	23411	36824	2.44	0.0E+00	11421001	NT	Homo sapiens HEF like Protein (HEFL), mRNA
10558	23444	36866	3.24	0.0E+00	AU136637.1	EST_HUMAN	AU136637 PLACE1 Homo sapiens cDNA clone PLACE1004737 5'
10558	23444	36867	3.24	0.0E+00	AU136637.1	EST_HUMAN	AU136637 PLACE1 Homo sapiens cDNA clone PLACE1004737 5'
10574	23400	36881	2.02	0.0E+00	AJ205844.1	NT	Homo sapiens partial RANBP7 gene for RANBP7/Importin7 and partial ZNF143 gene
10574	23400	36882	2.02	0.0E+00	AJ205844.1	NT	Homo sapiens partial RANBP7 gene for RANBP7/Importin7 and partial ZNF143 gene
10579	23465	36889	0.93	0.0E+00	AV695712.1	EST_HUMAN	AV695712 GKX Homo sapiens cDNA clone GKDXA07 5'
10579	23465	36890	0.93	0.0E+00	AV695712.1	EST_HUMAN	AV695712 GKX Homo sapiens cDNA clone GKDXA07 5'
10585	23471	36897	0.72	0.0E+00	AF072408.1	NT	Homo sapiens killer cell inhibitory receptor KIRCI gene, exons 2, 3, and 4
10587	23473	36900	2.46	0.0E+00	AA131248.1	EST_HUMAN	zp97h11.1 Stragene muscle 937208 Homo sapiens cDNA clone IMAGE:628197 5'
10612	23499	36929	0.98	0.0E+00	AA131248.1	EST_HUMAN	zp97h11.1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:503545 5'
10612	23499	36930	0.96	0.0E+00	AA131248.1	EST_HUMAN	zp97h11.1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:503545 5'
10653	23539	36973	1.91	0.0E+00	AF179308.1	NT	Homo sapiens KIF4 (KIF4) mRNA, complete cds
10697	23563	37013	0.9	0.0E+00	BE880658.1	EST_HUMAN	601491565F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3693657 5'
10708	23594	37021	5.26	0.0E+00	BE730772.1	EST_HUMAN	601570712F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3845403 5'
10708	23594	37022	5.26	0.0E+00	BE730772.1	EST_HUMAN	601570712F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3845403 5'
10713	23599	37026	0.95	0.0E+00	AU127403.1	EST_HUMAN	AU127403 NT2RP2 Homo sapiens cDNA clone NT2RP2001212 5'
10722	23608	37037	1.14	0.0E+00	BE988511.1	EST_HUMAN	601645134F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3630177 6'

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
10722	23608	37038	1.14	0.0E+00	BE968511.1	EST_HUMAN	601845134F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3930177 5'
10738	23624	37055	0.86	0.0E+00	BE997487.1	EST_HUMAN	601432317F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3917453 5'
10747	23633	37068	0.84	0.0E+00	AA311624.1	EST_HUMAN	EST182353 Jurkat T-cells VI Homo sapiens cDNA 5' end
10748	23634	37087	0.6	0.0E+00	4758827	NT	Homo sapiens neurexin III (NRXN3) mRNA
10759	23645	37078	0.72	0.0E+00	BE991113.1	EST_HUMAN	601432228F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3917698 5'
10762	23648	37081	0.9	0.0E+00	11560161	NT	Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA
10772	23658	37087	0.84	0.0E+00	AB029290.1	NT	Homo sapiens mRNA for actin binding protein ABP020, complete cds
10779	23665	37092	4.32	0.0E+00	AB006590.1	NT	Homo sapiens mRNA for estrogen receptor beta, complete cds
10779	23665	37093	4.32	0.0E+00	AB006590.1	NT	Homo sapiens mRNA for estrogen receptor beta, complete cds
10784	23670	37099	1.4	0.0E+00	AA704457.1	EST_HUMAN	z19b06.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:450707 3' similar to gb:M14123_cds1 RETROVIRUS-RELATED GAG POLYPROTEIN (HUMAN);
10788	23672	37100	0.86	0.0E+00	M29291.1	NT	Human beta 1,4-galactosyltransferase mRNA, complete cds
10788	23674	37103	4.73	0.0E+00	BF340331.1	EST_HUMAN	602037046F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4184939 5'
10788	23674	37104	4.73	0.0E+00	BF340331.1	EST_HUMAN	602037046F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4184939 5'
10813	23699	37126	0.9	0.0E+00	BE997149.1	EST_HUMAN	601439713F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924578 5'
10813	23699	37127	0.9	0.0E+00	BE997149.1	EST_HUMAN	601439713F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924578 5'
10872	23768	37183	0.73	0.0E+00	AI631818.1	EST_HUMAN	wa36e03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2300188 3' similar to TR:Q61204
10872	23768	37184	0.73	0.0E+00	AI631818.1	EST_HUMAN	Q61204 NOTCH2-LIKE ;
10884	23769	37184	1.3	0.0E+00	T03078.1	EST_HUMAN	Q61204 NOTCH2-LIKE ;
10906	23791	37220	0.82	0.0E+00	AU122429.1	EST_HUMAN	FB23A4 Feetal brain, Stratiogens Homo sapiens cDNA clone FB23A4 3'end
10931	23816	37245	2.41	0.0E+00	BF436218.1	EST_HUMAN	AU122429 MAMMA1 Homo sapiens cDNA clone MAMMA1002368 5'
10932	23817		1.75	0.0E+00	AV654765.1	EST_HUMAN	nab45e12.x1 Soares_NSF_F8_0W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3265271 3'
10950	23834	37261	3.78	0.0E+00	AW517980.1	EST_HUMAN	AV654765 GLC Homo sapiens cDNA clone GLCZC07 3'
10954	23838	37265	5.05	0.0E+00	BE549213.1	EST_HUMAN	xu174b01.x1 NCI_CGAP_Kid8 Homo sapiens cDNA clone IMAGE:2807401 3' similar to gb:M69066 MOESIN (HUMAN);
10970	23854	37281	0.7	0.0E+00	11436005	NT	601078764F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3464703 5'
10988	23860	37311	0.81	0.0E+00	X88863.1	NT	Homo sapiens hypothetical protein DKFZ6761P1010 (DKFZ6761P1010), mRNA
10997	23881	37312	2.07	0.0E+00	BE781742.1	EST_HUMAN	H. sapiens mRNA for NK receptor (183 Acti)
11016	23900	37337	2.27	0.0E+00	BE082720.1	EST_HUMAN	601467419F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3870700 5'
11016	23900	37338	2.27	0.0E+00	BE082720.1	EST_HUMAN	RC2-BT0642-150200-012-403 BT0642 Homo sapiens cDNA
11021	23905	37344	0.84	0.0E+00	Y08032.1	NT	RC2-BT0642-150200-012-403 BT0642 Homo sapiens cDNA
11027	23811	37353	0.76	0.0E+00	AI656890.1	EST_HUMAN	Human endogenous retrovirus-K, LTR U5 and gag gene

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11033	23917	37359	3.04	0.0E+00	BE743215.1	EST_HUMAN	601573895F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3835198 5'
11033	23917	37360	3.04	0.0E+00	BE743215.1	EST_HUMAN	601573895F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3835198 5'
11036	23920	37361	0.88	0.0E+00	BE617655.1	EST_HUMAN	601441723T1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3845956 3'
11036	23920	37362	0.88	0.0E+00	BE617655.1	EST_HUMAN	601441723T1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3845956 3'
11054	23938	37376	0.54	0.0E+00	H39805.1	EST_HUMAN	601441723T1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3845956 3'
11072	23956	37392	2.22	0.0E+00	D87675.1	NT	601441723T1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3845956 3'
11075	23959	37394	0.58	0.0E+00	BE172254.1	EST_HUMAN	Homo sapiens DNA for amyloid precursor protein, complete cds
11075	23959	37395	0.58	0.0E+00	BE172254.1	EST_HUMAN	MRO-HT0559-270300-008-e12 HT0559 Homo sapiens cDNA
11081	24013	37454	3.41	0.0E+00	AV711075.1	EST_HUMAN	MRO-HT0559-270300-008-e12 HT0559 Homo sapiens cDNA
11081	24013	37455	3.41	0.0E+00	AV711075.1	EST_HUMAN	AV711075 Cu Homo sapiens cDNA clone CuAAKG05 5'
11083	24015	37455	2.08	0.0E+00	AW813783.1	EST_HUMAN	AV711075 Cu Homo sapiens cDNA clone CuAAKG05 5'
11090	24021	37463	8.48	0.0E+00	AW903563.1	EST_HUMAN	RC3-ST0197-120200-015-a03 ST0197 Homo sapiens cDNA
11102	24033	37477	2.25	0.0E+00	11431124	NT	EST375636 MAGe sequences, MAGH Homo sapiens cDNA
11102	24033	37478	2.25	0.0E+00	11431124	NT	Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA
11104	24035	37480	1.84	0.0E+00	AW067621.1	EST_HUMAN	Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA
11113	24043	37488	1.83	0.0E+00	BE243270.1	EST_HUMAN	wy61109.x1 Scores_NSF_F8_gw_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2563085 3' similar to TR:Q60568 Q60566 VDX;
11114	24044	37489	3.23	0.0E+00	A1652239.1	EST_HUMAN	TCAAP3D0917 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCAA Homo sapiens cDNA clone TCAAP0917
11114	24044	37490	3.23	0.0E+00	A1652239.1	EST_HUMAN	wb28a12.x1 NCI CGAP_G06 Homo sapiens cDNA clone IMAGE:2306974 3' similar to contains element
11124	24054	37500	4.28	0.0E+00	11545911	NT	MSR1 MSR1 repetitive element;
11124	24054	37501	4.28	0.0E+00	11545911	NT	wb28a12.x1 NCI CGAP_G06 Homo sapiens cDNA clone IMAGE:2306974 3' similar to contains element
11140	24069	37515	1.98	0.0E+00	AW404795.1	EST_HUMAN	MSR1 MSR1 repetitive element;
11144	24073	37520	3.57	0.0E+00	11424829	NT	MSR1 MSR1 repetitive element;
11146	24074	37521	8.6	0.0E+00	4504536	NT	Homo sapiens NOD2 protein (NOD2), mRNA
11146	24074	37522	8.6	0.0E+00	4504536	NT	UI-HF-BLO-acm-d-04-Q-U1r1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3059383 5'
11146	24075	37523	3.46	0.0E+00	A1991827.1	EST_HUMAN	Homo sapiens hypothalamic protein FLJ20079 (FLJ20079), mRNA
11149	24078	37527	2.03	0.0E+00	BE982109.1	EST_HUMAN	Homo sapiens 5-hydroxytryptamine (serotonin) receptor 1E (HTR1E), mRNA
11153	24082	37529	7.78	0.0E+00	BE891630.1	EST_HUMAN	Homo sapiens 5-hydroxytryptamine (serotonin) receptor 1E (HTR1E), mRNA
11155	24084	37530	2.4	0.0E+00	8923939	NT	wb32p06.x1 Scores_Dieckgrafe_colon_NHGD Homo sapiens cDNA clone IMAGE:2521715 3'
11155	24084	37531	2.4	0.0E+00	8923939	NT	601506204F2 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3908865 5'
11161	24089	37636	1.74	0.0E+00	AB014608.1	NT	601434322F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3919636 5'



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Table 4  
Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11161	24059	37637	1.74	0.0E+00	AB014608.1	NT	Homo sapiens mRNA for KIAA0738 protein, partial cds
11169	24097	37644	3.32	0.0E+00	BE903304.1	EST_HUMAN	601874332F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3957343 5'
11172	19052	32177	1.88	0.0E+00	AA195905.1	EST_HUMAN	zp95b11.r1 Stragelene muscle 9c7209 Homo sapiens cDNA clone IMAGE:627693 5' similar to gb:X03740 MYOSIN HEAVY CHAIN, SKELETAL MUSCLE (HUMAN);
11192	24118	37665	3.77	0.0E+00	AA809080.1	EST_HUMAN	hw17c08.s1 NCL_CGAP_GC80 Homo sapiens cDNA clone IMAGE:3943015 5'
11193	24119	37666	5.68	0.0E+00	BE793498.1	EST_HUMAN	LAMBDA CHAIN C REGIONS (HUMAN);
11200	24126	37672	18.68	0.0E+00	AV727362.1	EST_HUMAN	60158829F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943015 5'
11200	24126	37673	18.68	0.0E+00	AV727362.1	EST_HUMAN	AV727362 HTG Homo sapiens cDNA clone HTCAQH06 5'
11214	24140	37692	23.51	0.0E+00	AW516055.1	EST_HUMAN	xy04g10.x1 NCL_CGAP_Lym12 Homo sapiens cDNA clone HTCAQH06 5'
11220	24146	37697	1.6	0.0E+00	AU135741.1	EST_HUMAN	RIBOSOMAL PROTEIN S16 (HUMAN);
11225	24151	37600	3.11	0.0E+00	AW593333.1	EST_HUMAN	AU135741 PLACE1 Homo sapiens cDNA clone PLACE1002784 5'
11225	24151	37601	3.11	0.0E+00	AW593333.1	EST_HUMAN	hg13d02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2945475 3' similar to contains element MSR1 repetitive element;
11226	24151	37602	3.11	0.0E+00	AW593333.1	EST_HUMAN	hg13d02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2945475 3' similar to contains element MSR1 repetitive element;
11228	24154	37604	1.86	0.0E+00	Z34897.1	NT	hg13d02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2945475 3' similar to contains element MSR1 repetitive element;
11228	24155	37605	3.08	0.0E+00	F13069.1	EST_HUMAN	hg13d02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2945475 3' similar to contains element MSR1 repetitive element;
11255	24179	37629	3.12	0.0E+00	AW338094.1	EST_HUMAN	HSC31C031 normalized Infant brain cDNA Homo sapiens cDNA clone c-31c03
11259	24180	37629	4.38	0.0E+00	AW451230.1	EST_HUMAN	xw6601.x1 NCL_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2832985 3' similar to gb:X17115 IG MU CHAIN C REGION (HUMAN);
11256	24180	37630	4.38	0.0E+00	AW451230.1	EST_HUMAN	U1-H-B13-ah-a-01-0-U1.s1 NCL_CGAP_Sub55 Homo sapiens cDNA clone IMAGE:2736649 3'
11258	13328	37632	4.43	0.0E+00	4506632	NT	U1-H-B13-ah-a-01-0-U1.s1 NCL_CGAP_Sub55 Homo sapiens cDNA clone IMAGE:2736649 3'
11260	24183	37632	1.73	0.0E+00	AB014567.1	NT	Homo sapiens ribosomal protein L31 (RPL31) mRNA
11274	24186	37649	1.7	0.0E+00	BE298449.1	EST_HUMAN	Homo sapiens mRNA for KIAA0667 protein, partial cds
11285	24206	37656	1.86	0.0E+00	AB011117.1	NT	601119248F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3029219 5'
11302	24221	37670	1.56	0.0E+00	BE792155.1	EST_HUMAN	Homo sapiens mRNA for KIAA0545 protein, partial cds
11303	24222	37670	73.46	0.0E+00	BF884061.1	EST_HUMAN	601582046F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3936539 5'
11305	24224	37672	3.86	0.0E+00	AU118388.1	EST_HUMAN	602141405F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4302432 5'
11306	24225		1.7	0.0E+00	AW236299.1	EST_HUMAN	AU118388 HEMBA1 Homo sapiens cDNA clone HEMBA1003486 6'
11311	24230	37676	5.79	0.0E+00	AU149809.1	EST_HUMAN	xn72b01.x1 NCL_CGAP_CML1 Homo sapiens cDNA clone IMAGE:2699977 3' similar to gb:X02152_cds1 L- LACTATE DEHYDROGENASE M CHAIN (HUMAN);
							qf43c03.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1762772 3'



Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO.	Exon SEQ ID NO.	ORF SEQ ID NO.	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11311	24230	37677	5.79	0.0E+00	AI14809.1	EST_HUMAN	q43c03.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:175272 3'
11312	24231	37678	2.28	0.0E+00	AW391637.1	EST_HUMAN	QV4-ST0234-121199-032-b06 S10234 Homo sapiens cDNA
11325	24244		2.15	0.0E+00	AU116908.1	EST_HUMAN	AU116908 HEMBA1 Homo sapiens cDNA clone HEMBA1000255 5'
11329	24248	37686	9.87	0.0E+00	11424726	NT	Homo sapiens Insulin receptor (INSR), mRNA
11336	24255	37693	3.74	0.0E+00	AW804516.1	EST_HUMAN	QVQ-UN0093-170400-191-d08 UN0093 Homo sapiens cDNA
11336	24255	37694	3.74	0.0E+00	AW804516.1	EST_HUMAN	QVQ-UN0093-170400-191-d08 UN0093 Homo sapiens cDNA
11337	24258	37695	1.77	0.0E+00	BF340308.1	EST_HUMAN	602037014F1 NCL CGAP_Brm64 Homo sapiens cDNA clone IMAGE:4184979 5'
11339	24259	37697	28.65	0.0E+00	BE261209.1	EST_HUMAN	601148357F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3163310 5'
11343	24262	37702	1.82	0.0E+00	AB028040.1	NT	Homo sapiens mRNA for KIAA1117 protein, partial cds
11348	24266	37707	4.38	0.0E+00	U50326.1	NT	Human protein kinase C substrate 80K-H (PRKCSH) gene, exon 16-17
11375	24291	37735	65.09	0.0E+00	AA740782.1	EST_HUMAN	q532e07.s1 NCL CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1329412 3' similar to contains element
11392	24299	37744	3.08	0.0E+00	AF252303.1	NT	MSR1 repetitive element
11396	24312	37758	5.59	0.0E+00	C05089.1	EST_HUMAN	Homo sapiens signaling lymphocytic activation molecule (SLAM) gene, exon 2
11403	24319	37765	2.44	0.0E+00	AA746375.1	EST_HUMAN	C05089 Homo sapiens heart cDNA (Ynakamura) Homo sapiens cDNA clone 3NHC4817
11403	24319	37767	2.44	0.0E+00	AA746375.1	EST_HUMAN	q556h01.r1 NCL CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1308009 5'
11411	24327		1.98	0.0E+00	BE392389.1	EST_HUMAN	q556h01.r1 NCL CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1308009 5'
11414	24330	37778	1.57	0.0E+00	BF353625.1	EST_HUMAN	601307408F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3625550 5'
11415	24331	37779	5.98	0.0E+00	AL157608.1	EST_HUMAN	QV2-HT0698-020800-295-d07 HT0698 Homo sapiens cDNA
11427	24343	37788	7.08	0.0E+00	AU116988.1	EST_HUMAN	DKFZp761J2116 r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761J2116 5'
11440	24356	37804	1.98	0.0E+00	AV693656.1	EST_HUMAN	AU116988 HEMBA1 Homo sapiens cDNA clone HEMBA1000424 5'
11448	24364	37813	1.4	0.0E+00	BF366563.1	EST_HUMAN	AV693656 GKX Homo sapiens cDNA clone GKXGNC03 5'
11474	24387	37837	2.7	0.0E+00	BE182360.1	EST_HUMAN	IL3-NT0104-200500-143-A07 NT0104 Homo sapiens cDNA
11474	24387	37838	2.7	0.0E+00	BE182360.1	EST_HUMAN	PMO-HT0645-060500-002-E05 HT0645 Homo sapiens cDNA
11484	24397	37847	1.72	0.0E+00	AW406380.1	EST_HUMAN	PMO-HT0645-060500-002-E05 HT0645 Homo sapiens cDNA
11488	24400	37850	3.66	0.0E+00	BE986423.1	EST_HUMAN	UI-HF-BL0-acc-c-08-0-UI r1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3060089 5'
11496	24407	37860	1.63	0.0E+00	AW500307.1	EST_HUMAN	UI-HF-BNO-akg-d-02-0-UI r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3924142 5'
11496	24407	37861	1.63	0.0E+00	AW500307.1	EST_HUMAN	UI-HF-BNO-akg-d-02-0-UI r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077019 5'
							b678c04.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3048486 5' similar to gb:Y00345_cds1
							POLYADENYLATE-BINDING PROTEIN (HUMAN); gb:X65553 M.musculus mRNA for poly(A) binding protein (MOUSE);
11499	24410	37864	1.71	0.0E+00	BE018293.1	EST_HUMAN	AU121677 MAMMA1 Homo sapiens cDNA clone MAMMA1000731 5'
11524	24434	37892	1.52	0.0E+00	AU121677.1	EST_HUMAN	AU121677 MAMMA1 Homo sapiens cDNA clone IMAGE:3925403 5'
11536	24446	37907	3.94	0.0E+00	BE897953.1	EST_HUMAN	601440446F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3925403 5'
11538	24448	37910	1.68	0.0E+00	AI459545.1	EST_HUMAN	ap86g11.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1952804 3'

Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11538	24448	37911	1.68	0.0E+00	AI459545.1	EST_HUMAN	ec88g11.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1952804 3'
11578	24487	37956	3.1	0.0E+00	4759827	NT	Homo sapiens neuroxin III (NRXN3) mRNA
11578	24488	37957	3.31	0.0E+00	BF205651.1	EST_HUMAN	601870302F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4101433 5'
11595	24494	37963	13.79	0.0E+00	AW207734.1	EST_HUMAN	U1-H-B12-age-h-01-0-U1.s1 NC1_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:2724312 3'
11598	24497	37964	3.18	0.0E+00	AB018260.1	NT	Homo sapiens mRNA for KIAA0717 protein, partial cds
11598	24497	37965	3.18	0.0E+00	AB018260.1	NT	Homo sapiens mRNA for KIAA0717 protein, partial cds
11598	24499	37967	4.97	0.0E+00	BE206846.1	EST_HUMAN	ba04d07.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823373 5' similar to TR:O76022 O76022 E1B-55KDA-ASSOCIATED PROTEIN ;
11598	24499	37968	4.97	0.0E+00	BE206846.1	EST_HUMAN	ba04d07.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823373 5' similar to TR:O76022 O76022 E1B-55KDA-ASSOCIATED PROTEIN ;
11613	24521	37969	2.4	0.0E+00	11024711	NT	Homo sapiens myosin, heavy polypeptide 4, skeletal muscle (MYH4), mRNA
11617	20819	34124	1.82	0.0E+00	L32832.1	NT	Homo sapiens zinc finger homeodomain protein (ATBF1-A) mRNA, complete cds
11621	24528	37996	2.44	0.0E+00	BE148076.1	EST_HUMAN	RC3-HT0230-040500-110-h04 HIT0230 Homo sapiens cDNA
11621	24528	37997	2.44	0.0E+00	BE148076.1	EST_HUMAN	RC3-HT0230-040500-110-h04 HIT0230 Homo sapiens cDNA
11643	24549	38020	1.56	0.0E+00	AW673459.1	EST_HUMAN	ba54d08.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2800397 5' similar to TR:O60275 O60275 KIAA0522 PROTEIN ;
11643	24549	38021	1.56	0.0E+00	AW673459.1	EST_HUMAN	ba54d08.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2800397 5' similar to TR:O60275 O60275 KIAA0522 PROTEIN ;
11663	24559	38044	5.1	0.0E+00	BF507876.1	EST_HUMAN	U1-H-B14-ack-b-10-0-U1.s1 NC1_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3085026 3'
11663	24559	38045	5.1	0.0E+00	BF507876.1	EST_HUMAN	U1-H-B14-ack-b-10-0-U1.s1 NC1_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3085026 3'
11671	24575	38051	1.68	0.0E+00	AL135170.1	EST_HUMAN	AU135170 PLACE1 Homo sapiens cDNA clone PLACE1001381 5'
11675	24579	38056	1.53	0.0E+00	BF576138.1	EST_HUMAN	602132459F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4271630 5'
11675	24579	38056	1.53	0.0E+00	BF576138.1	EST_HUMAN	602132459F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4271630 5'
11676	24580	38057	7.13	0.0E+00	BE876401.1	EST_HUMAN	601486828F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3889207 5'
11676	24580	38058	7.13	0.0E+00	BE876401.1	EST_HUMAN	601486828F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3889207 5'
11696	24589	38057	3.79	0.0E+00	BF240536.1	EST_HUMAN	601875630F1 NIH_MGC_59 Homo sapiens cDNA clone IMAGE:4099710 5'
11700	24602	38077	2.21	0.0E+00	AB037737.1	NT	Homo sapiens mRNA for KIAA1316 protein, partial cds
11700	24602	38078	2.21	0.0E+00	AB037737.1	NT	Homo sapiens mRNA for KIAA1316 protein, partial cds
11704	24606	38081	3.42	0.0E+00	11430868	NT	Homo sapiens retinoblastoma-like 2 (p130) (RBL2), mRNA
11704	24606	38082	3.42	0.0E+00	11430868	NT	Homo sapiens retinoblastoma-like 2 (p130) (RBL2), mRNA
11721	24623	38103	9.06	0.0E+00	4503544	NT	Homo sapiens eukaryotic translation initiation factor 5A (EIF5A) mRNA
11730	24632	38113	3.17	0.0E+00	AW328173.1	EST_HUMAN	dr04g05.x1 NIH_MGC_3 Homo sapiens cDNA clone IMAGE:2847177 5'
11733	24635		25.52	0.0E+00	M55083.1	NT	Human gamma actin-like pseudogene, complete cds

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11737	24639	38119	2.9	0.0E+00	AI660968.1	EST_HUMAN	wf20a11.x1 Soares_Dieckgraefe_colon_NHUC Homo sapiens cDNA clone IMAGE:2351180 3' similar to gb:M87789 IG GAMMA-1 CHAIN C REGION (HUMAN);
11740	24642	38121	2.51	0.0E+00	BF306996.1	EST_HUMAN	601889823F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4123948 5'
11740	24642	38122	2.51	0.0E+00	BF306996.1	EST_HUMAN	601889823F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4123948 5'
11747	24648	38129	42.39	0.0E+00	BF362462.1	EST_HUMAN	QV2-NN0054-230600-333-e04 NN0054 Homo sapiens cDNA
11768	24659		2.58	0.0E+00	BE897051.1	EST_HUMAN	601439605F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924577 5'
11769	24670		1.93	0.0E+00	4503788	NT	Homo sapiens fyn-related kinase (FRK) mRNA
11780	24679	38168	1.79	0.0E+00	8923698	NT	Homo sapiens golgin-like protein (GLP), mRNA
11782	24681		1.82	0.0E+00	BF207662.1	EST_HUMAN	601861947F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:4081715 5'
11793	24715	38206	4.01	0.0E+00	BE206846.1	EST_HUMAN	ba04d07.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823373 5' similar to TR:O76022 O76022 E1B
11793	24715	38207	4.01	0.0E+00	BE206846.1	EST_HUMAN	55KDA-ASSOCIATED PROTEIN. ;
11795	24717	38209	1.82	0.0E+00	AW753028.1	EST_HUMAN	ba04d07.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823373 5' similar to TR:O76022 O76022 E1B
11800	24722		2.1	0.0E+00	AA558707.1	EST_HUMAN	QV6-CT0226-101289-071-06 C10225 Homo sapiens cDNA
11801	18537	31379	4.92	0.0E+00	AI934954.1	EST_HUMAN	nm2c08.s1 NCL CGAP_P14 Homo sapiens cDNA clone IMAGE:1043342 similar to gb:M95178 ALPHA-ACTININ 1, CYTOSKELETAL ISOFORM (HUMAN);
11802	24723	38215	11.66	0.0E+00	AW327895.1	EST_HUMAN	wp06g08.x1 NCL CGAP_K1d12 Homo sapiens cDNA clone IMAGE:2464094 3'
11821	25699	38233	1.73	0.0E+00	AW292776.1	EST_HUMAN	fr02b08.x1 NIH_MGC_3 Homo sapiens cDNA clone IMAGE:2846918 5'
11828	23951	37397	1.54	0.0E+00	4758827	NT	U1H-BW0-ajj-d-07-0-U1.s1 NCL CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2729509 3'
11834	24695	38174	4.25	0.0E+00	BE185656.1	EST_HUMAN	Homo sapiens neuritin III (NRXN3) mRNA
11846	24695	38186	5.71	0.0E+00	AL046540.1	EST_HUMAN	IL5-HT0731-020500-077-05 H10731 Homo sapiens cDNA
11846	24696	38187	5.71	0.0E+00	AL046540.1	EST_HUMAN	DKFZp434G178.J1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434G178 5'
11853	24703	38194	7.61	0.0E+00	AI923116.1	EST_HUMAN	DKFZp434G178.J1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434G178 5'
11856	24746	38237	5.43	0.0E+00	AA760913.1	EST_HUMAN	wn8sg03.x1 NCL CGAP_U11 Homo sapiens cDNA clone IMAGE:2452468 3' similar to gb:S37431 LAMININ RECEPTOR (HUMAN);
11856	24746	38238	5.43	0.0E+00	AA760913.1	EST_HUMAN	nz11c07.s1 NCL CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1287468 3' similar to TR:Q13686
11861	24751	38244	1.71	0.0E+00	BE910546.1	EST_HUMAN	Q13686 ALKB HOMOLOG PROTEIN. ;
11871	23971	37408	4.99	0.0E+00	BE676347.1	EST_HUMAN	nz11c07.s1 NCL CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1287468 3' similar to TR:Q13686
11873	23973	37410	1.5	0.0E+00	AI893358.1	EST_HUMAN	601501090F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3902926 5'
							752712.x1 NCL CGAP_C111 Homo sapiens cDNA clone IMAGE:3285918 3' similar to TR:O00409 O00409 CHECKPOINT SUPPRESSOR 1. ;
							ba6b09.x1 NCL CGAP_U11 Homo sapiens cDNA clone IMAGE:2274521 3' similar to gb:M55542 INTERFERON-INDUCED GUANYLATE-BINDING PROTEIN 1 (HUMAN);

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
11876	23976	37412	1.93	0.0E+00	BE616888.1	EST_HUMAN	601279335F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3611144 5'
11875	23975	37413	1.93	0.0E+00	BE616888.1	EST_HUMAN	601279335F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3611144 5'
11882	23982	37420	1.57	0.0E+00	AV757420.1	EST_HUMAN	AV757420 BM Homo sapiens cDNA clone BMFAGH03 5'
11011	24758	38253	1.76	0.0E+00	L39891.1	NT	Homo sapiens polycystic kidney disease-associated protein (PKD1) gene, complete cds
11911	24758	38254	1.76	0.0E+00	L39891.1	NT	Homo sapiens polycystic kidney disease-associated protein (PKD1) gene, complete cds
11825	24770	38267	3.99	0.0E+00	AU138211.1	EST_HUMAN	AU138211 PLACE1 Homo sapiens cDNA clone PLACE1008077 5'
11944	24788	38284	29.97	0.0E+00	A1207425.1	EST_HUMAN	HA2787 Human fetal liver cDNA library Homo sapiens cDNA
11944	24788	38285	29.97	0.0E+00	A1207425.1	EST_HUMAN	HA2787 Human fetal liver cDNA library Homo sapiens cDNA
11972	24816	38309	7.56	0.0E+00	BE748899.1	EST_HUMAN	601572186T1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3839012 3'
11972	24815	38310	7.56	0.0E+00	BE748899.1	EST_HUMAN	601572186T1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3839012 3'
11983	24926	38322	2.01	0.0E+00	AU141882.1	EST_HUMAN	AU141882 THYRO1 Homo sapiens cDNA clone THYRO1001398 5'
11983	24926	38323	2.01	0.0E+00	AU141882.1	EST_HUMAN	AU141882 THYRO1 Homo sapiens cDNA clone THYRO1001398 5'
11986	24929	38326	9	0.0E+00	AW006022.1	EST_HUMAN	w281h01.x1 NCI CGAP Bm25 Homo sapiens cDNA clone IMAGE:2568225 3' similar to WP:F63H10.2
11986	24929	38326	9	0.0E+00	AW006022.1	EST_HUMAN	CE11040 ZINC FINGER, C2H2 TYPE ;
11980	25700	38330	2.7	0.0E+00	BF002333.1	EST_HUMAN	7h22b10.x1 NCI CGAP Co16 Homo sapiens cDNA clone IMAGE:3316899 3' similar to TR:Q13458 Q13459
12010	24852	38352	2.96	0.0E+00	AW397776.1	EST_HUMAN	TRIO ;
12010	24852	38353	2.96	0.0E+00	AW397776.1	EST_HUMAN	MR4-ST0118-261089-012-b03 ST0118 Homo sapiens cDNA
12031	24873	38377	4.58	0.0E+00	11435244	NT	MR4-ST0118-261089-012-b03 ST0118 Homo sapiens cDNA
12031	24873	38378	4.58	0.0E+00	11435244	NT	Homo sapiens KIAA0247 gene product (KIAA0247), mRNA
12036	24878	38384	6.4	0.0E+00	U36263.1	NT	Homo sapiens KIAA0247 gene product (KIAA0247), mRNA
12039	24881	38386	5.52	0.0E+00	BE379254.1	EST_HUMAN	Human beta-prime-adaptin (BAM22) gene, exon 5
12039	24881	38387	5.52	0.0E+00	BE379254.1	EST_HUMAN	601237691F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3609623 5'
12046	24887	38392	9.95	0.0E+00	U22028.1	NT	601237691F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3609623 5'
12051	24892	38395	1.61	0.0E+00	AA488894.1	EST_HUMAN	Human cytochrome P450 (CYP2A13) gene, complete cds
12058	24899	38404	2.49	0.0E+00	BE794758.1	EST_HUMAN	aa55g11.51 NCI CGAP GCBI Homo sapiens cDNA clone IMAGE:824900 3' similar to gb:M37766 B-
12062	24903	38406	38.48	0.0E+00	BE879833.1	EST_HUMAN	LYMPHOCYTE ACTIVATION MARKER BLAST-1 PRECURSOR (HUMAN);
12087	24908	38410	2.31	0.0E+00	4758827	NT	601590388F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944708 5'
12087	24908	38411	2.31	0.0E+00	4758827	NT	601491821F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3894220 5'
12071	24912	38415	1.75	0.0E+00	AF053543.1	NT	Homo sapiens neuroxin III (NRXN3) mRNA
12078	24919	38419	2.18	0.0E+00	W01479.1	EST_HUMAN	Homo sapiens neuroxin III (NRXN3) mRNA
							Homo sapiens glutathione transferase zeta 1 (GSTZ1) gene, exons 6 and 7
							2a34c02.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:284434 5' similar to
							SW:NABA_RAT P28435 SODIUM/BILE ACID COTRANSPORTER ;

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
12078	24919	38420	2.18	0.0E+00	W01479.1	EST_HUMAN	z34402.1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:294434 5' similar to SW:NABA_RAT P26436 SODIUM/BILE ACID COTRANSPORTER;
12080	24921	38423	2.68	0.0E+00	BE409993.1	EST_HUMAN	601289409F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3628544 5'
12081	24922	38424	1.48	0.0E+00	BE148850.1	EST_HUMAN	MRO-HT0241-150300-011-102 HT0241 Homo sapiens cDNA
12082	24923	38425	1.52	0.0E+00	11427345	NT	Homo sapiens protein kinase, AMP-activated, alpha 2 catalytic subunit (PRKAA2), mRNA
12082	24923	38426	1.52	0.0E+00	11427345	NT	Homo sapiens protein kinase, AMP-activated, alpha 2 catalytic subunit (PRKAA2), mRNA
12082	24923	38427	1.52	0.0E+00	11427345	NT	Homo sapiens protein kinase, AMP-activated, alpha 2 catalytic subunit (PRKAA2), mRNA
12082	24923	38427	1.52	0.0E+00	11427345	NT	Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced
12083	24924	38428	2.76	0.0E+00	AF223391.1	NT	Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced
12083	24924	38429	2.76	0.0E+00	AF223391.1	NT	Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced
12092	24933	38440	2	0.0E+00	AU132940.1	EST_HUMAN	AU132940 NT2RP4 Homo sapiens cDNA clone NT2RP4000929 5'
12095	24936	38442	2.75	0.0E+00	BE903372.1	EST_HUMAN	601876557F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3958935 5'
12111	24952	38455	5.84	0.0E+00	X51755.1	NT	Human lambda-immunoglobulin constant region complex (germline)
12111	24952	38456	5.84	0.0E+00	X51755.1	NT	Human lambda-immunoglobulin constant region complex (germline)
12118	24959	38458	1.47	0.0E+00	W88994.1	EST_HUMAN	zh7305.s1 Soares fetal liver spleen 1NFLS_S1 Homo sapiens cDNA clone IMAGE:417705 3'
12149	25701	38483	13.89	0.0E+00	BF309120.1	EST_HUMAN	601860534F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4131416 5'
12155	24994	38493	31.03	0.0E+00	BE297176.1	EST_HUMAN	601177407F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532988 5'
12164	26000	38501	5.75	0.0E+00	AL040793.1	EST_HUMAN	DKFZp434D0415_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434D0415 5'
12240	26954	31358	6.31	0.0E+00	BE312542.1	EST_HUMAN	601150023F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:3603020 5'
12249	25808		2.36	0.0E+00	AL163246.2	NT	Homo sapiens chromosome 21 segment HS21C046
12251	25816		7.98	0.0E+00	AL190993.1	EST_HUMAN	q917b12.x1 Soares fetal lung_NbHL10W Homo sapiens cDNA clone IMAGE:1739231 3'
12259	25078		4.27	0.0E+00	AB011399.1	NT	Homo sapiens gene for AF-8, complete cds
12279	25093		5.73	0.0E+00	AL163246.2	NT	Homo sapiens chromosome 21 segment HS21C046
12287	25099		4.11	0.0E+00	11417862	NT	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA
12304	25112		6.72	0.0E+00	6802973	NT	Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA
12347	25789		4.26	0.0E+00	AL041931.1	EST_HUMAN	DKFZp434K0819_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434K0819 5'
12369	25918		2.12	0.0E+00	11418318	NT	Homo sapiens antioxidant protein 1 (AOP1), nuclear gene encoding mitochondrial protein, mRNA
12378	25158		5.28	0.0E+00	AL048544.1	EST_HUMAN	DKFZp434G218_r1 434 (synonym: hies3) Homo sapiens cDNA clone DKFZp434G218 5'
12389	25819		1.45	0.0E+00	AI903497.1	EST_HUMAN	Homo sapiens G-2 and S-phase expressed 1 (GTSET1), mRNA
							DKFZp434G218 5'
							IL-BT030-271098-001 BT030 Homo sapiens cDNA
							y40e08.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:245222 3' similar to SW:POL_BAEVM P10272 POL POLYPROTEIN;
12423	25940		2.21	0.0E+00	N54484.1	EST_HUMAN	Homo sapiens adenylosuccinate lyase gene, complete cds
12437	25195		3.31	0.0E+00	AF106656.1	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
12440	13921	26867	7.53	0.0E+00	4507500	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA

Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
12440	13921	26868	7.53	0.0E+00	4507600	NT	Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA
12449	25922		2.17	0.0E+00	10092587	NT	Homo sapiens nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2 (NFATC2), mRNA
12474	13638		3.25	0.0E+00	AF003528.1	NT	Homo sapiens X-linked antidiabetic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions
12503	25613	31736	2.44	0.0E+00	11430460	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
12562	25784	31575	2.62	0.0E+00	AW590882.1	EST_HUMAN	hg31e06.x1 NCL_CGAP_GC8 Homo sapiens cDNA clone IMAGE:2947234 3' similar to contains Alu repetitive element; contains element MER22 repetitive element:
12586	25788		1.51	0.0E+00	L20493.1	NT	Human gamma-glutamyl transpeptidase mRNA, complete cds
12613	25817		3.04	0.0E+00	AF068757.1	NT	Homo sapiens somatostatin receptor subtype 3 (SSTR3) gene, 5' flanking region and partial cds
12650	25325		4.02	0.0E+00	9635487	NT	Human endogenous retrovirus, complete genome
12685	25812		1.67	0.0E+00	AI204914.1	EST_HUMAN	an05h04.x1 Stralagene schizo brain S11 Homo sapiens cDNA clone IMAGE:1884759 3'
12719	25337		2.09	0.0E+00	AI904646.1	EST_HUMAN	QV-BT065-020399-103 BT065 Homo sapiens cDNA
12727	25509		1.6	0.0E+00	BE439792.1	EST_HUMAN	HTM1-654F HTM1 Homo sapiens cDNA
12766	14738	27706	4.46	0.0E+00	H30132.1	EST_HUMAN	y559e08.r1 Soares breast 3N5bHst Homo sapiens cDNA clone IMAGE:182248 5' similar to gb:M64099
12768	14738						GAMMA-GLUTAMYL TRANSPEPTIDASE 5 PRECURSOR (HUMAN);
12768	14738	27707	4.46	0.0E+00	H30132.1	EST_HUMAN	y559e08.r1 Soares breast 3N5bHst Homo sapiens cDNA clone IMAGE:182248 5' similar to gb:M64099
12777	25406		16.65	0.0E+00	D50659.1	NT	GAMMA-GLUTAMYL TRANSPEPTIDASE 5 PRECURSOR (HUMAN);
12781	25410	31763	4.86	0.0E+00	11418189	NT	Human gamma-cytoplasmic actin (ACTGP9) pseudogene
12781	25410	31764	4.86	0.0E+00	11418189	NT	Homo sapiens thyroid autoantigen 70kD (Ku antigen) (G22P1), mRNA
12784	25410						Homo sapiens thyroid autoantigen 70kD (Ku antigen) (G22P1), mRNA
12784	25413		1.57	0.0E+00	AB026898.1	NT	Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds)
12827	25445		2.96	0.0E+00	AW684999.1	EST_HUMAN	h86a05.x1 Soares NFL_T_GB_C_S1 Homo sapiens cDNA clone IMAGE:2979154 3'
12871	25473		1.74	0.0E+00	11526291	NT	Homo sapiens hypothetical protein FLJ20454 (FLJ20454), mRNA
12897	16403	29304	2.66	0.0E+00	4885312	NT	Homo sapiens G protein-coupled receptor 24 (GPR24), mRNA
12905	16430	31353	1.96	0.0E+00	6063918	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
12908	26492		2.45	0.0E+00	AB026900.1	NT	Homo sapiens CST gene for carboxylate sulfotransferase, exon 1, 2, 3, 4, 5
12945	25511	31773	1.95	0.0E+00	9558724	NT	Homo sapiens cleavage and polyadenylation specific factor 1, 160kD subunit (CPSF1), mRNA
12969	25904		3.31	0.0E+00	AL163246.2	NT	Homo sapiens chromosome 21 segment HS21C048
12976	13711	26618	1.58	0.0E+00	6063918	NT	Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA
13044	25579		3.08	0.0E+00	7657020	NT	Homo sapiens DKFZp434P211 protein (DKFZP434P211), mRNA
13060	25596		2.03	0.0E+00	AB026898.1	NT	Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds)

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Table 4

## Single Exon Probes Expressed in Adult Liver

Probe SEQ ID NO:	Exon SEQ ID NO:	ORF SEQ ID NO:	Expression Signal	Most Similar (Top) Hit BLAST E Value	Top Hit Accession No.	Top Hit Database Source	Top Hit Descriptor
13087	25608		1.58	0.0E+00	X57147.1	NT	Human endogenous retrovirus p1E.1 (ERV9)

## CLAIMS

1. A spatially-addressable set of single exon nucleic acid probes for measuring gene expression in a sample derived  
5 from human adult liver comprising a plurality single exon nucleic probes, said probes comprising any one of the nucleotide sequences set out in SEQ ID NOS: 1 - 13,109 or a complementary sequence, or a portion of such a sequence.
- 10 2. A spatially-addressable set of single exon nucleic acid probes as claimed in claim 1 wherein each of said plurality of probes is separately and addressably amplifiable.
3. A spatially-addressable set of single exon nucleic acid  
15 probes as claimed in claim 1 wherein each of said plurality of probes is separately and addressably isolatable from said plurality.
4. A spatially-addressable set of single exon nucleic acid  
20 probes as claimed in any of claims 1 to 3 wherein said probes comprise any one of the nucleotide sequences set out in SEQ ID NOS.: 13,110 - 25,995.
5. A spatially-addressable set of single exon nucleic acid  
25 probes as claimed in any of claims 1 to 4, wherein each of said plurality of probes is amplifiable using at least one common primer.
6. A spatially-addressable set of single exon nucleic acid  
30 probes as claimed in any of claims 1 to 5 wherein the set comprises between 50 - 20,000 single exon nucleic acid probes.
7. A spatially-addressable set of single exon nucleic acid  
35 probes as claimed in any of claims 1 to 6, wherein the



average length of the single exon nucleic acid probes is between 200 and 500 bp.

8. A spatially-addressable set of single exon nucleic acid probes as claimed in any of claims 1 to 7, wherein at least 50% of said single exon nucleic acid probes lack prokaryotic and bacteriophage vector sequence.
9. A spatially-addressable set of single exon nucleic acid probes as claimed in any of claims 1 to 8, wherein at least 50% of said single exon nucleic acid probes lack homopolymeric stretches of A or T.
10. A spatially-addressable set of single exon nucleic acid probes as claimed in any of claims 1 - 9 characterised in that said set of probes is addressably disposed upon a substrate.
11. A spatially-addressable set of single exon nucleic acid probes as claimed in claim 10 wherein said substrate is selected from glass, amorphous silicon, crystalline silicon and plastic.
12. A microarray comprising a spatially addressable set of single exon nucleic acid probes as claimed in any of claims 1 - 11.
13. A single exon nucleic acid probe for measuring human gene expression in a sample derived from human adult liver comprising a nucleotide sequence as set out in any of SEQ ID NOS.: 1 - 13,109 or a complementary sequence or a fragment thereof wherein said probe hybridizes at high stringency to a nucleic acid molecule expressed in the human adult liver.

14. A single exon nucleic acid probe as claimed in claim 13 comprising a nucleotide sequence as set out in any of SEQ ID NOs.: 13,110 - 25,995 or a complementary sequence or a fragment thereof.
- 5
15. A single exon nucleic acid probe for measuring human gene expression in a sample derived from human adult liver which is a nucleic acid molecule having a sequence encoding a peptide comprising a peptide sequence as set out in any
- 10 of SEQ ID NOs.: 25,996 - 38,578, or a complementary sequence or a fragment thereof wherein said probe hybridizes at high stringency to a nucleic acid expressed in the human adult liver.
- 15 16. A single exon nucleic acid probe as claimed in any one of claims 13 to 15 wherein said single exon nucleic acid probe comprises between 15 and 25 contiguous nucleotides of said SEQ ID NO.
- 20 17. A single exon nucleic acid probe as claimed in any one of claims 13 to 15, wherein said probe is between 3 - 25 kb in length.
18. A single exon nucleic acid probe as claimed in any one
- 25 of claims 13 - 17, wherein said probe is DNA, RNA or PNA.
19. A single exon nucleic acid probe as claimed in any one of claims 13 - 18, wherein said probe is detectably labeled.
- 30
20. A single exon nucleic acid probe as claimed in any one of claims 13 - 19, wherein said probe lacks prokaryotic and bacteriophage vector sequence.
- 35 21. A single exon nucleic acid probe as claimed in any one

of claims 13 - 20, wherein said probe lacks homopolymeric stretches of A or T.

22. A method of measuring gene expression in a sample  
5 derived from human adult liver, comprising:  
    contacting the microarray of claim 12, with a first  
        collection of detectably labeled nucleic acids,  
        said first collection of nucleic acids derived  
        from mRNA of human adult liver; and then  
10 measuring the label detectably bound to each probe of  
    said microarray.

23. A method of identifying exons in a eukaryotic genome,  
comprising:  
15 algorithmically predicting at least one exon from  
    genomic sequence of said eukaryote; and then  
    detecting specific hybridization of detectably labeled  
        nucleic acids to a single exon probe,  
wherein said detectably labeled nucleic acids are derived  
20 from mRNA from the adult liver of said eukaryote, said  
probe is a single exon probe having a fragment identical in  
sequence to, or complementary in sequence to, said  
predicted exon, said probe is included within a microarray  
according to claim 12, and said fragment is selectively  
25 hybridizable at high stringency.

24. A method of assigning exons to a single gene,  
comprising:  
    identifying a plurality of exons from genomic  
30 sequence according to the method of claim 23; and  
    then  
    measuring the expression of each of said exons in a  
        plurality of tissues and/or cell types using  
        hybridization to single exon microarrays having a  
35 probe with said exon,

wherein a common pattern of expression of said exons in said plurality of tissues and/or cell types indicates that the exons should be assigned to a single gene.

5 25. A nucleic acid sequence as set out in any of SEQ ID Nos: 1 - 25,995 which encodes a peptide.

26. A peptide encoded by a sequence as set out in any of SEQ ID Nos: 1 - 25,995.

10

27. A peptide comprising a sequence as set out in any of SEQ ID Nos: 25,996 - 38,578.

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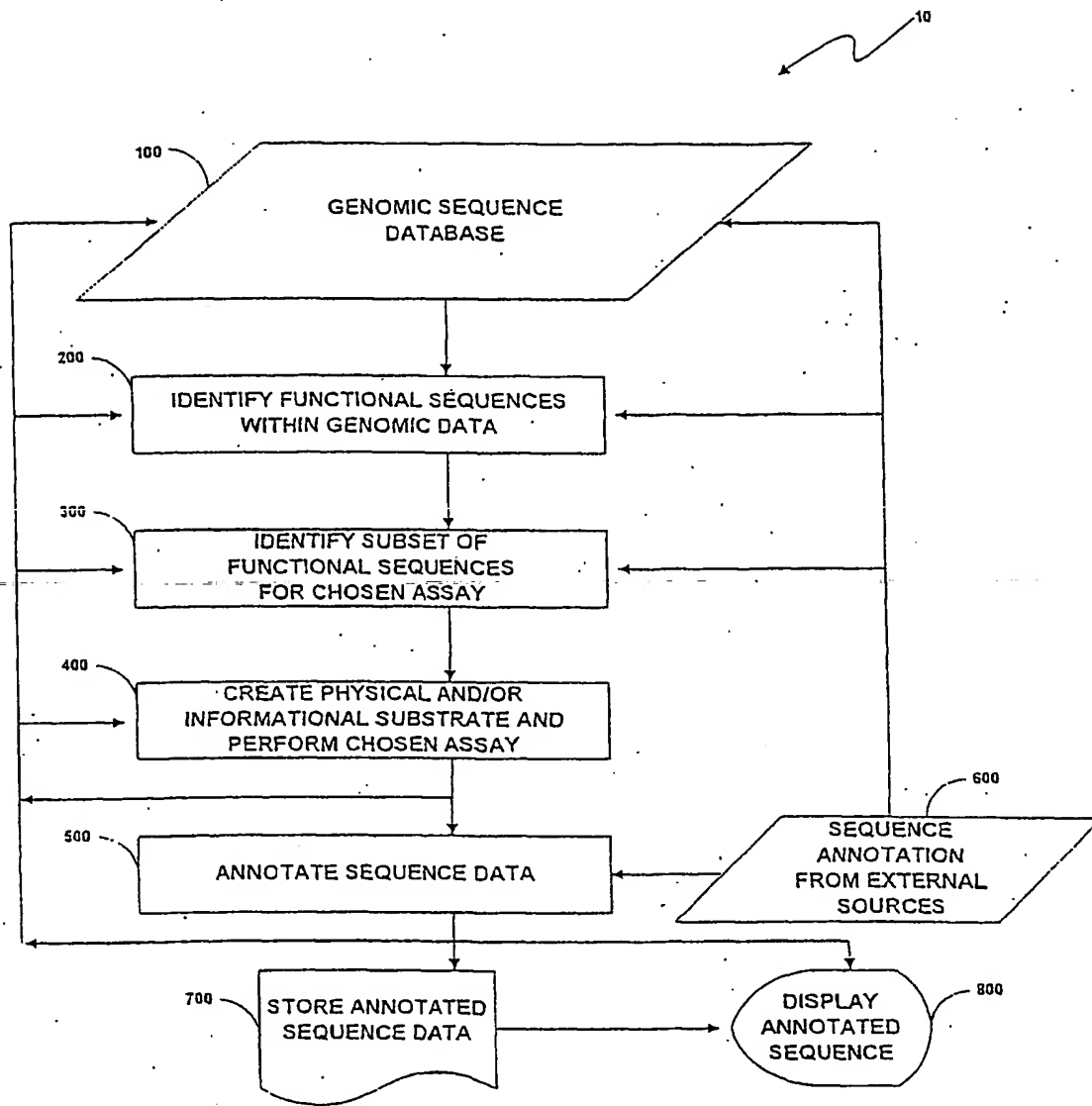


Fig. 1

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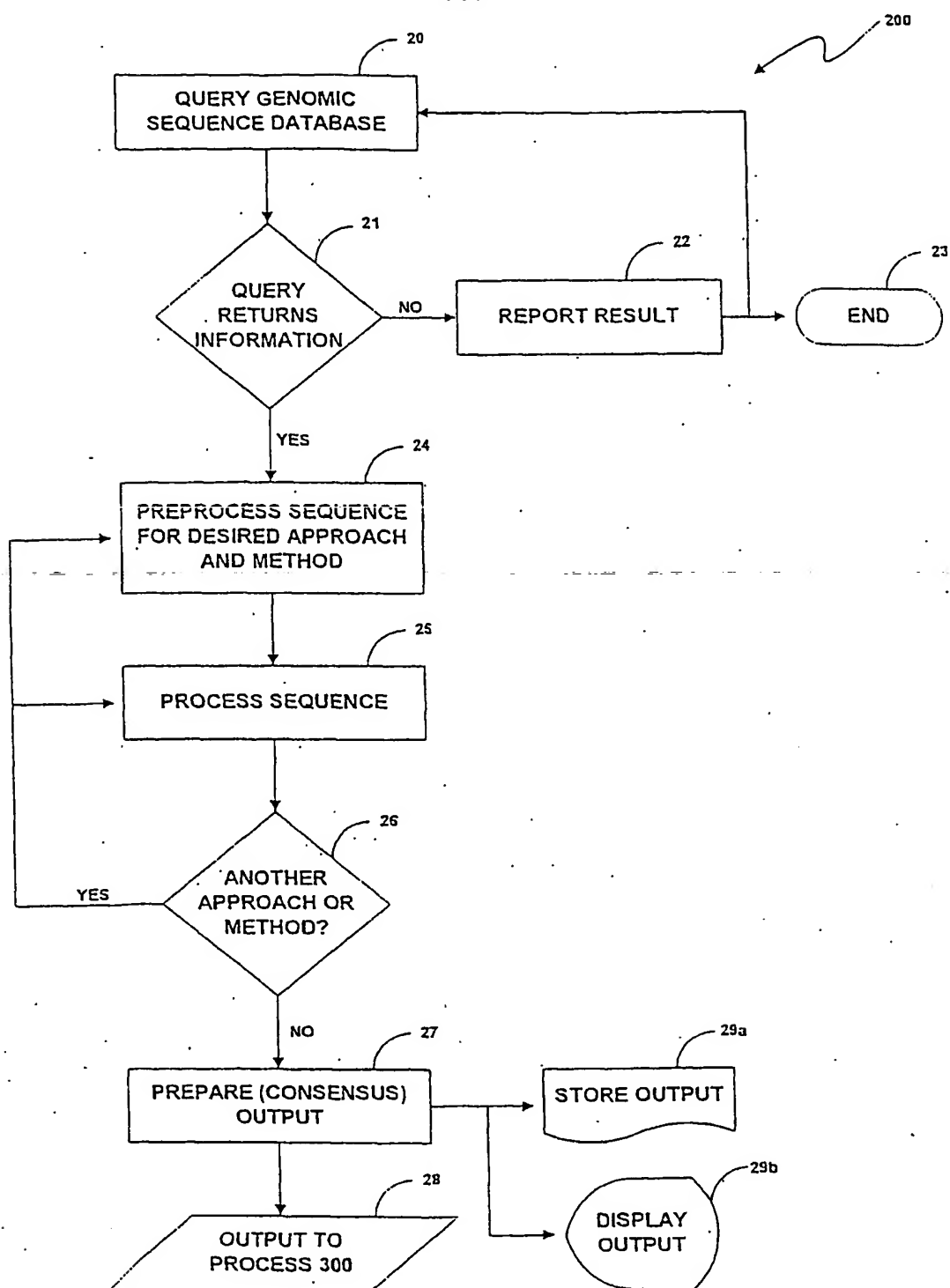
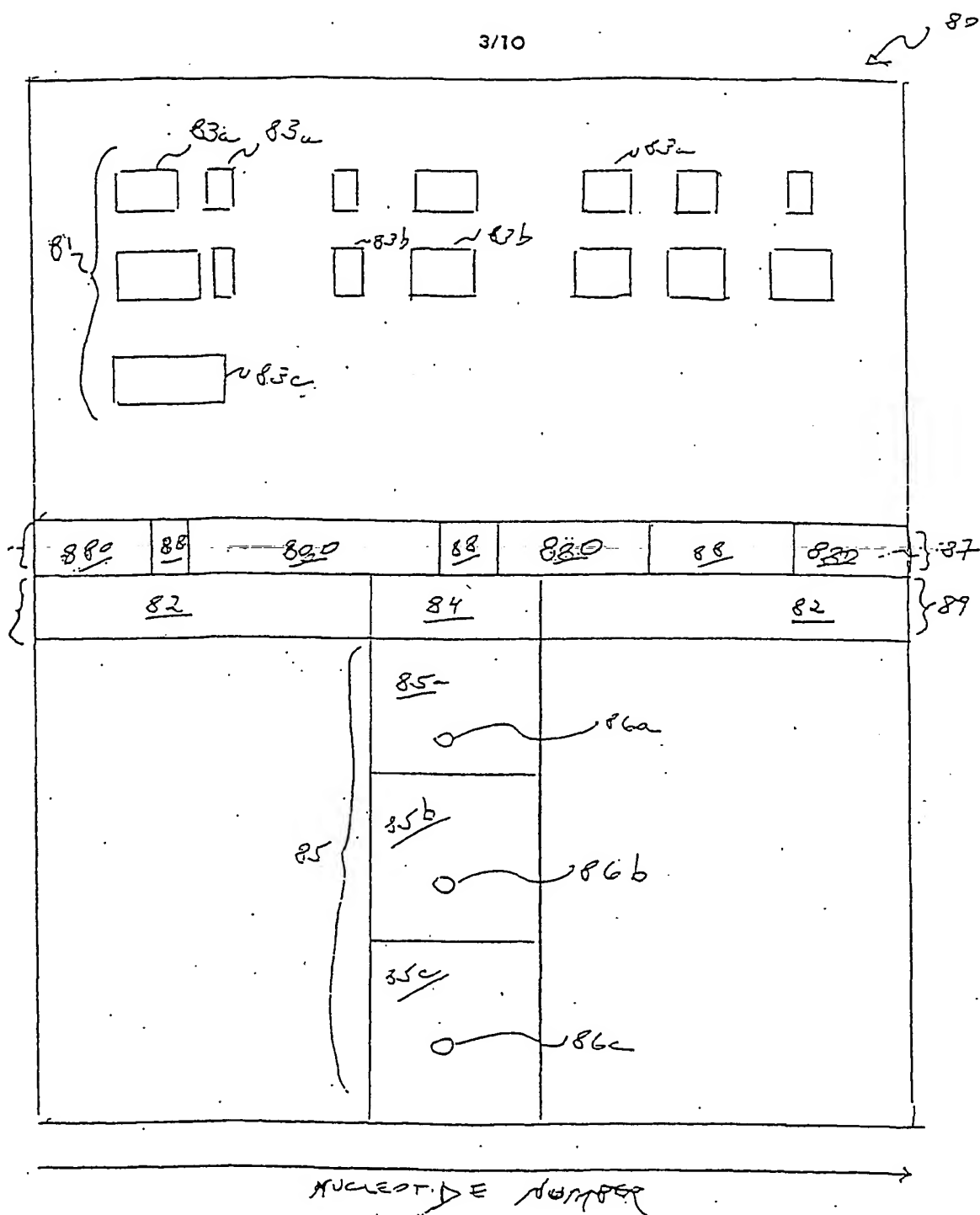


Fig. 2

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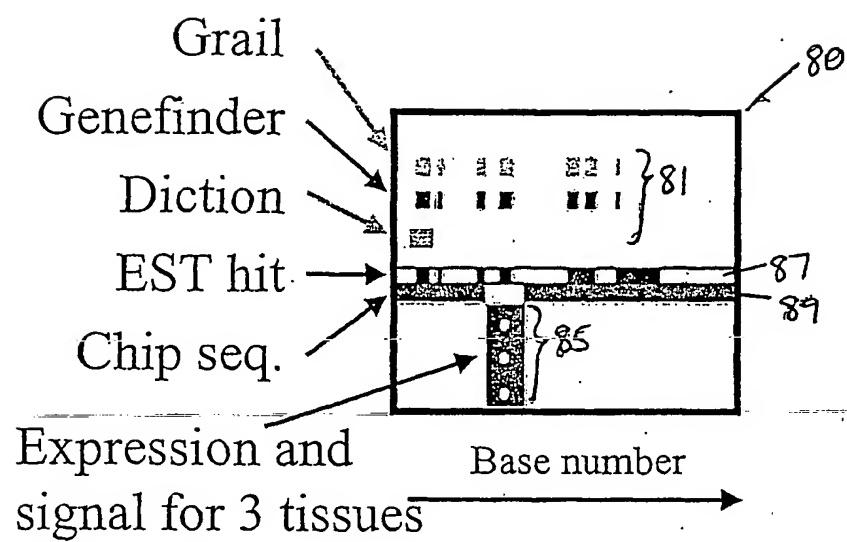


Fig. 4



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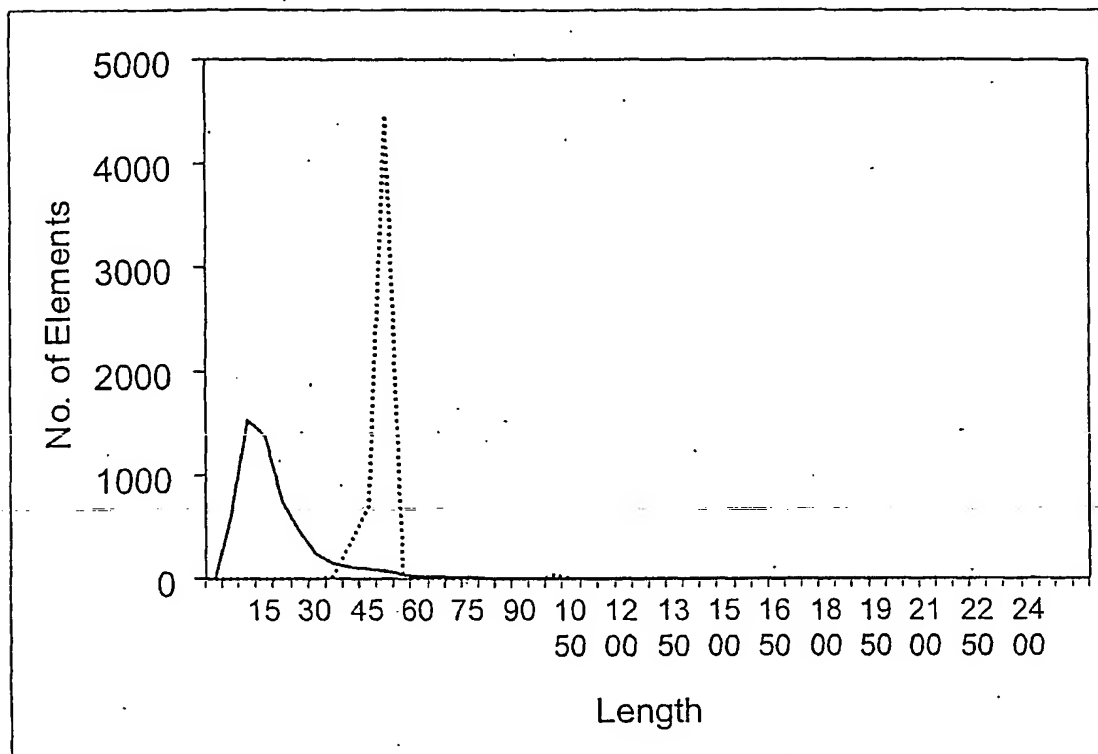


Fig. 5

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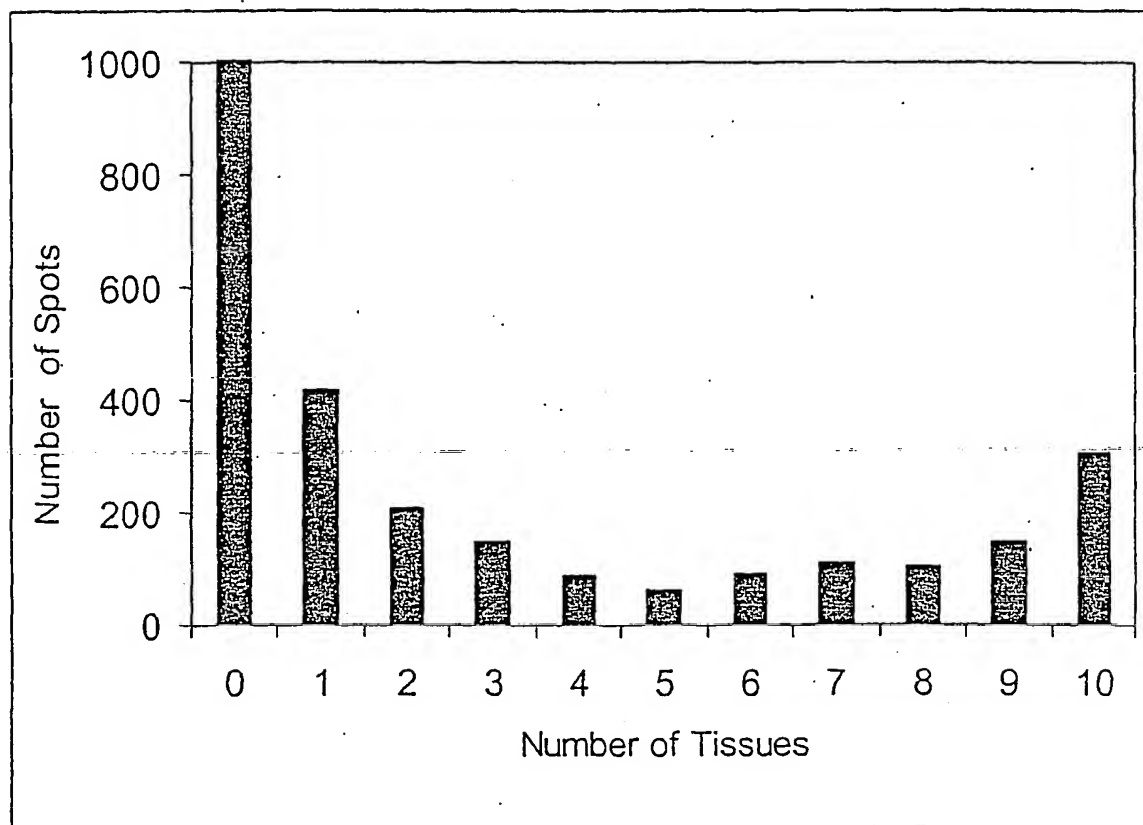


Fig. 6

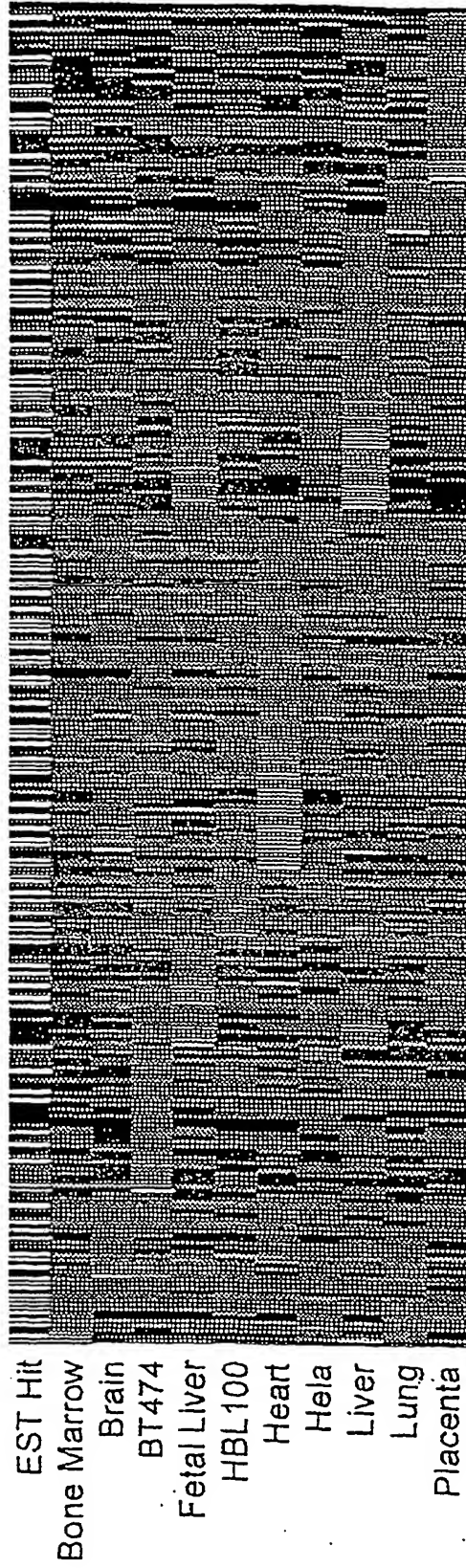


Fig. 7a

ratio legend

>9  
8  
7  
6  
5  
4  
3  
2  
1



Fig. 7b

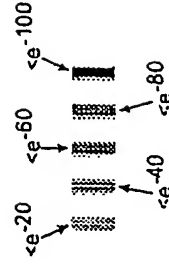


Fig. 7c

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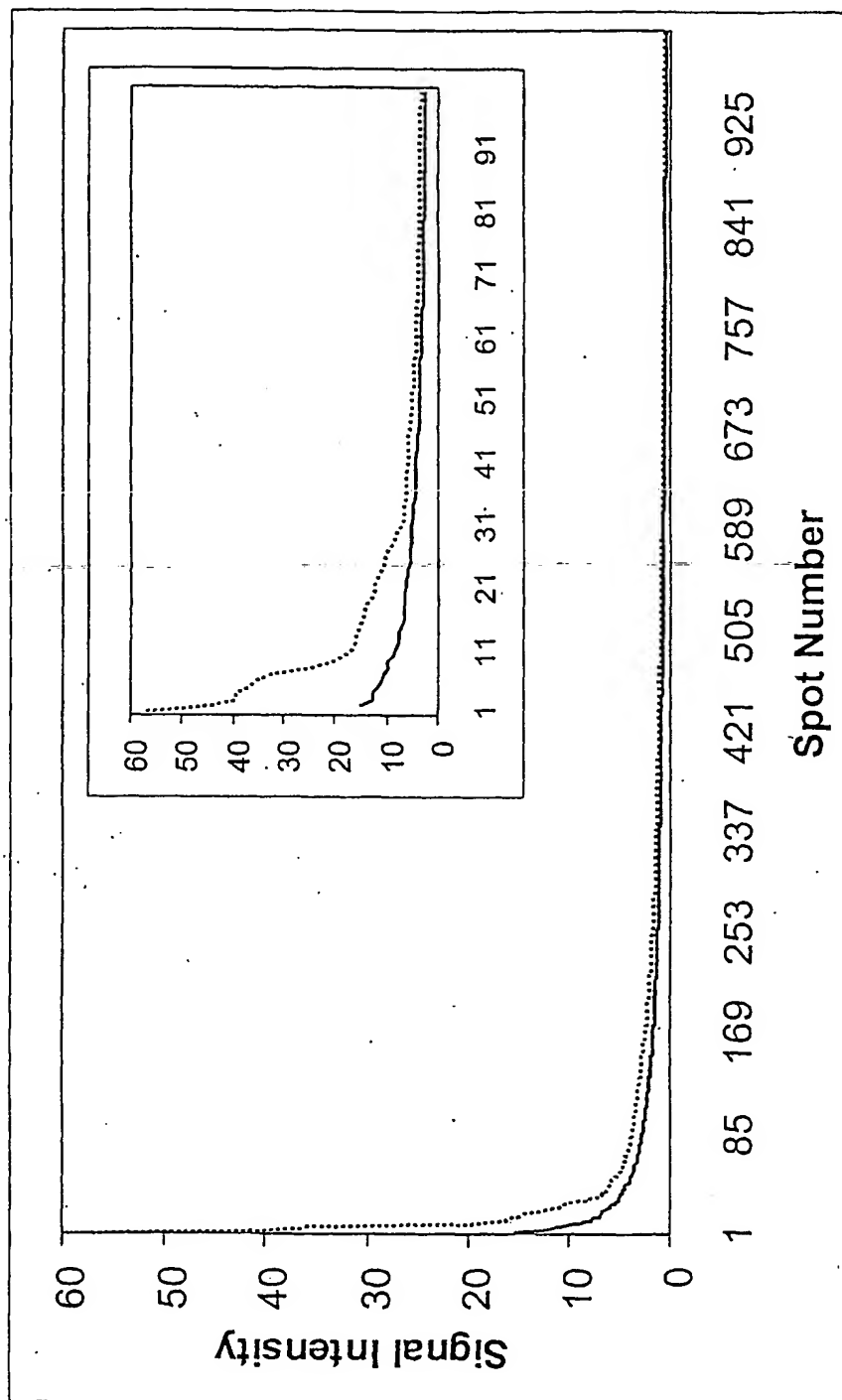


Fig. 8

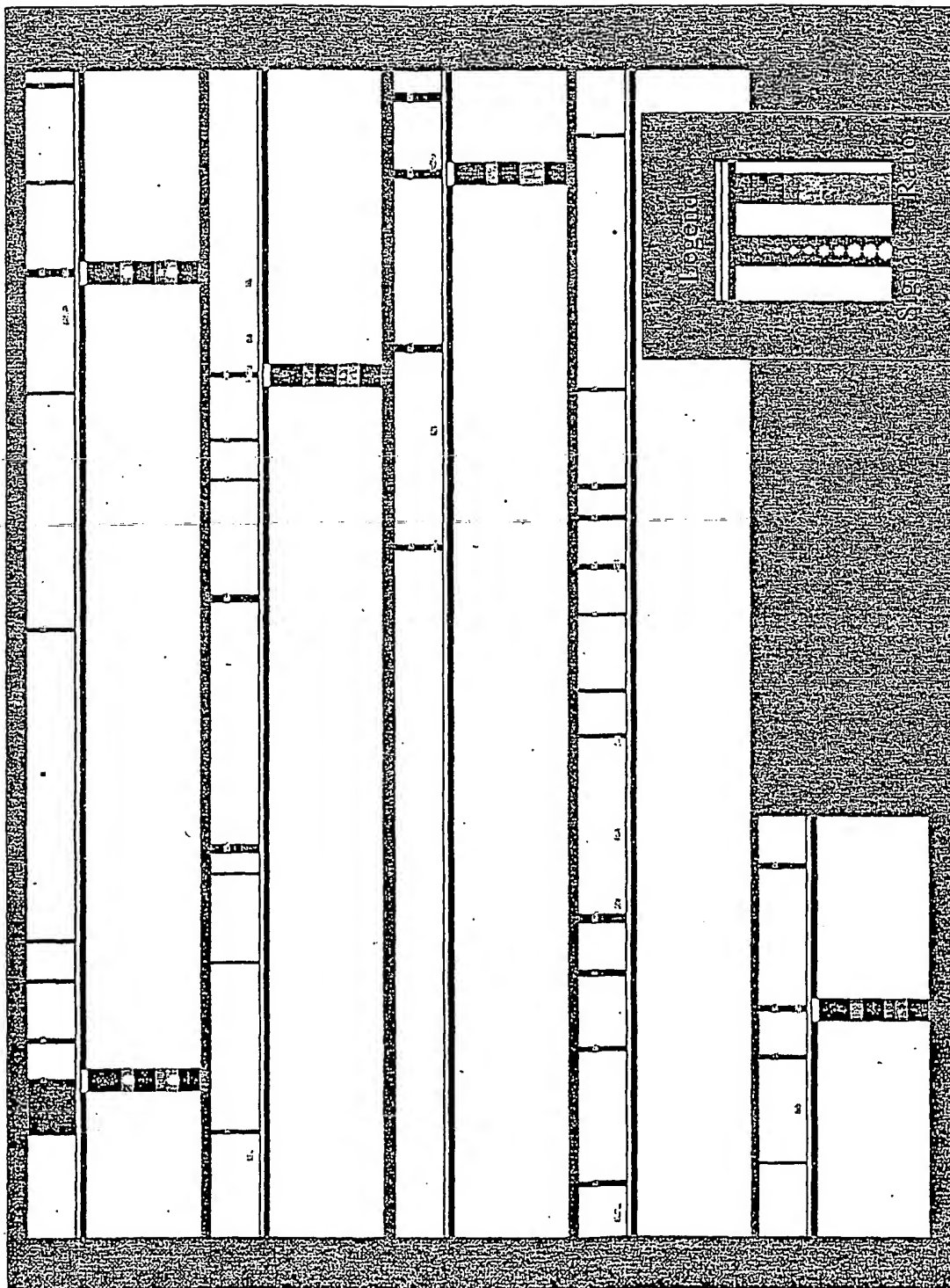


Fig. 9

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Fig. 10

